

**A MAGNIFICENT**  
**80**  
**PAGES**  
**FOR ONLY**  
**70**  
**PENCE**  
**Beat**  
**That!**

# COMPUTER EXPRESS

**FIRST NEWS • FIRST REVIEWS • BEST BUYS • YOUR WEEKLY GUIDE**

## THIS WEEK

**ATARI**

## The Stacy gets an upgrade while Atari ends up in court on a piracy charge

## PCs

They're burning spreadsheets in America **Plus** Compaq's notebook sets the standard for speed

# AMIGA

## Games players held by Captive **Plus** a video about desktop video

# ARCHIMEDES

## RISC portable coming?

# GAMES GALORE!

The fastest ever solution to Damocles, plus news of two extension disks to keep you going • Voodoo Nightmare on test • All the latest news, gossip, consoles, & charts...

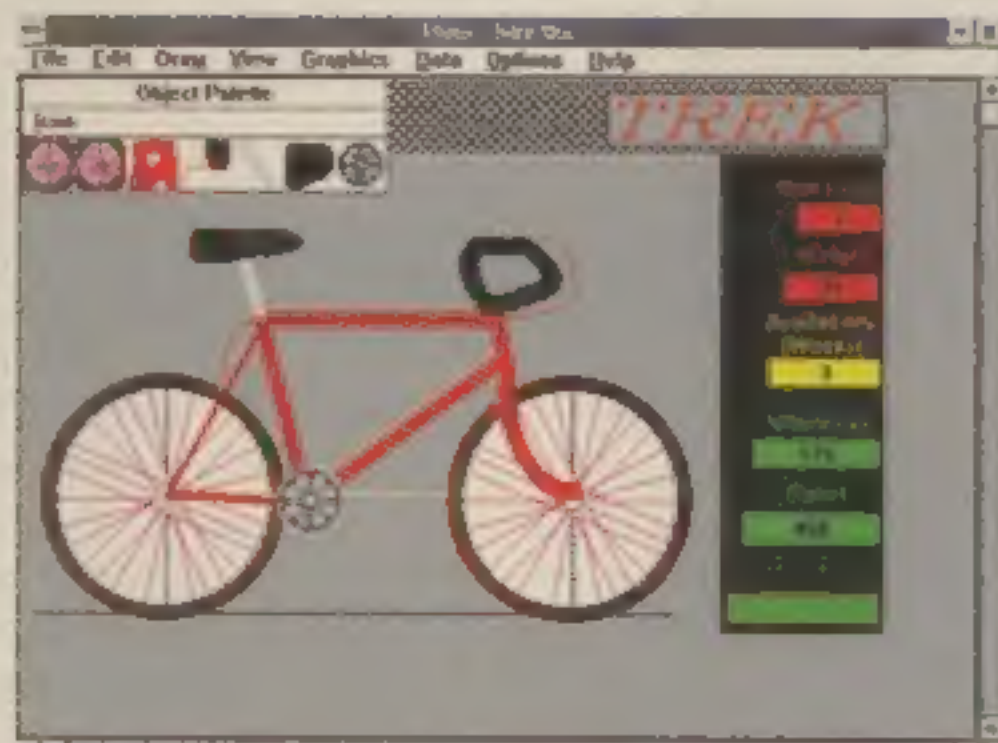


# IT'S THE SPECTRUM CONSOLE!



But it's not from Amstrad. We have **EXCLUSIVE** details on page 7

# YOU AIN'T SEEN NOTHING LIKE IT



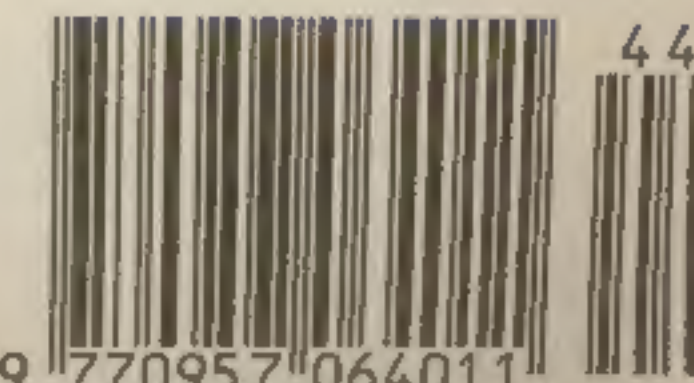
What if a spreadsheet used graphics instead of numbers? What if a database let you draw pictures? A different kind of program is reviewed on page 70

# AMIGA CLASSIC

The cheapest way to get a Macintosh is still to buy an emulator. The latest Amiga device, AMax II, is on test inside

# STARTING OUT IN PROGRAMMING?

**Our comprehensive series starts on page 64**



9 770957 064011

44

THE

12

1000

100

111



# frontend

edited by Colin Campbell

## London fields PC guide



This is London. It's big, noisy, sleazy, mean, dirty and, more often than not, lots of fun.

Trouble is, it's got so much of everything that it's hard to know where to go. With this in mind, the highly influential magazine *Time Out* and Triangle Interactive Publications have joined forces to release a disk-based city guide for PC owners.

The *Time Out London Guide 1991* is the first in a series which will eventually cover Paris, Frankfurt, Amsterdam and New York. You'll be able to glean information concerning accommodation, eating and drinking, children, health, shopping, nightlife, sightseeing, gay and lesbian venues, museums, students, transport and sports.

Triangle boss Peter Mackeonis enthused: "The disk guides are invaluable to business visitors, day trippers, tourists and even Londoners who want to know their city better. This is the first time PC owners can get London information on their own PC. There's no waiting around for directory enquiries or using a modem."

## First time classic

Who says computers are baffling for first time users? Apple, in a smart showing of public relations savvy, has given an east German school six of its new Classic machines.

None of the kids had ever seen a computer and only two from a class of 50 had ever heard of Apple Computers.

They were told to produce the school's first newspaper in 45 years on the machines. The children, all aged under 14, managed the feat in two days.

## Jailbird hacker robs just about everyone

A man has admitted running a large scale hacking and fraud operation - from a prison cell.

Convicted murderer Daniel Faries was sentenced to life last year, but from his cell in a Miami prison, he managed to hack into credit companies computer systems around the US. By using other people's credit numbers he sent hundreds of gifts to friends, relations and even prison warders.

Prezzies included jewellery, cases of champagne, food hampers, hired limousines, Rolex watches and even a set of diamond studded false teeth. Faries even managed to bribe warders by sending 24 of them a pair of snakeskin boots each.

He'd managed the scam by persuading a favourite warder to smuggle a portable PC into the prison. Then he built himself a

modern and wired it into prison telephone lines hidden behind a metal plate in his cell.

He dialled out to a satellite dish by using an electronic watch. Apparently, the tones of the watch are similar to that of a telephone. This way he could roam around the international satellite communications system at will.

Faries' pals lived a life of luxury and he even continued the fraud after being transferred to a prison in Chicago. It was here, though, that scrupulous prison officers uncovered the crime.

But Faries, who faces five years for fraud, is asking the judge for a maximum sentence. He wants to get back into prison to "get started on a new scheme".

For more hacking news turn to page 8.

## Look, NESS monsters!



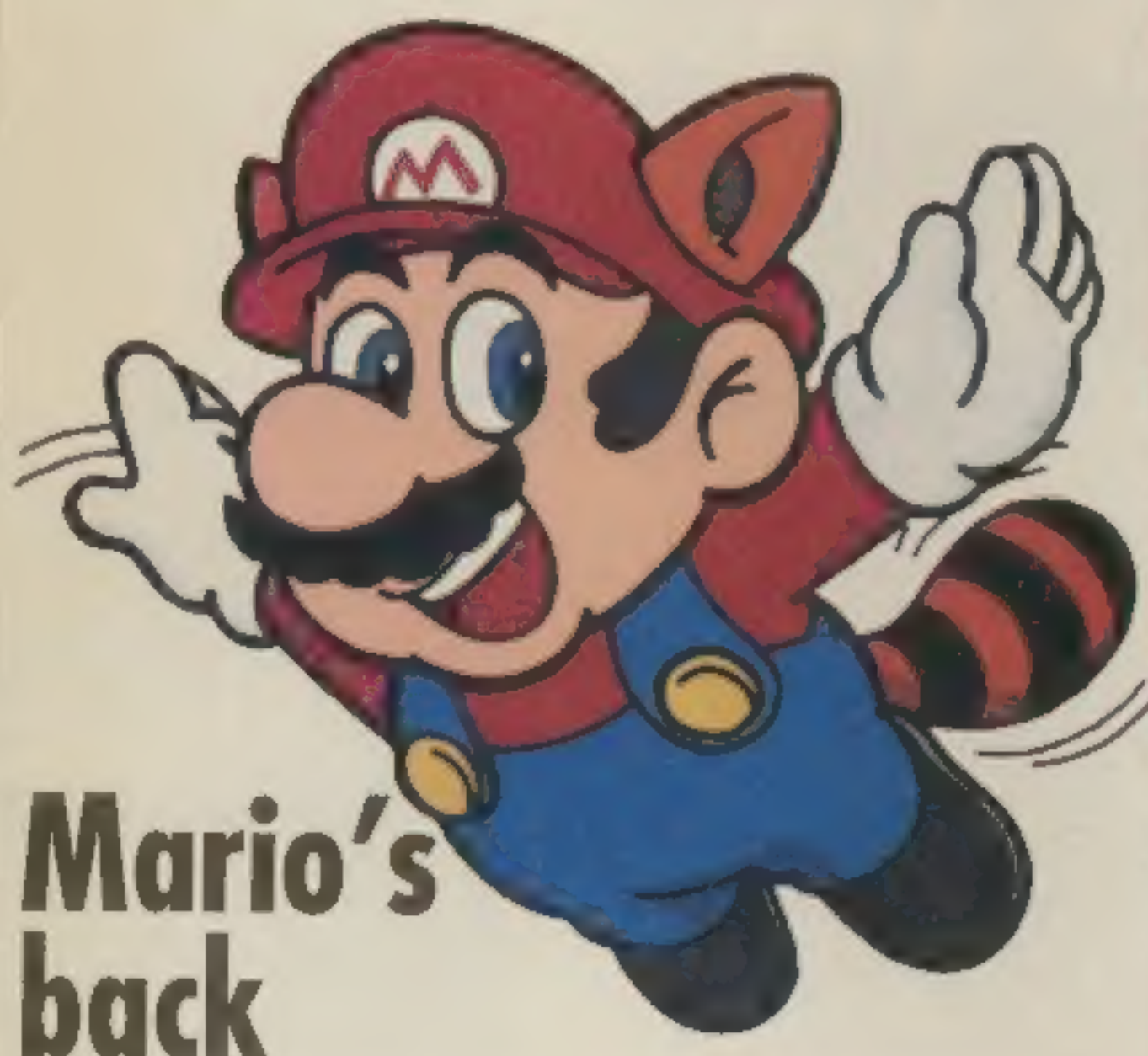
PC manufacturer NESS last week unveiled a new line up of machines ranging from an expandable entry level 286 to a heavy-duty 386 option.

All models can accommodate up to three 5.25-inch disk drives and one 3.5-inch drive and are supplied with two serial ports, one parallel port and feature switchable 0/1 wait states. Six 16-bit expansion slots and two 8-bit slots are available with the AT style desktops and tower while the 'slimline' machines come with four 16-bit and two

8-bit slots. The entry level 286 costs £770 and comes with 1Mb RAM, expandable to 8Mb on the motherboard. They run at switchable speeds of 8MHz and 16MHz.

Apart from the whizzy Intel chip, the 386 machines are much the same although they can be expanded to 16Mb and run at 20/25MHz. Prices start at a reasonable £1,210. Mono monitors are supplied as standard.

Call 081-452 8233.



## Mario's back

Mario is probably the most famous computer character in the world. In the US Nintendo mad kids munch Mario breakfast cereals, wear Mario baseball caps and, of course, they play Mario games. Mario has a place in 31 million American homes.

As such, Nintendo's introduction of a brand new Mario game is seen as something of a media event. Last week the Japanese mega-company unveiled *Dr Mario* for the Nintendo console and hand-held Gameboy.

The game combines all the bounce along fun of the original *Super Mario Brothers*, with just a hint of difference. In *Dr Mario* you have to deliver pills and potions as an antidote to a horrible virus.

Mario's creator Howard Phillips said, "He has that universally appealing element of fun that makes the games irresistible to both adults and children."

## Damocles word



*Damocles* is a great game. It's a feast of curious three dimensional worlds and brain mashing puzzles designed to keep you hooked for months.

However, even the most dedicated *Damocles* adventurer is sure to solve things sooner or later, which is the reason for two mission disks from Novagen.

Each disk will feature five new space based missions - the original was a standard 'save the world from a very big comet' affair. But it's not just the objectives which are new. Author Paul Woakes says the mission disks will reveal new aspects of the basic gameplay.

*Damocles Mission I* is out this month with the second pencilled in for a January launch. They will both cost £9.99 on the ST and Amiga. Call distributor Active 081-752 1260.

For a solution to *Damocles* turn to page 66.





# Technology pitches in

Computers are in the firing line once again, but this time it's the want of technology which is coming in for some stick.

Top baseball team the Boston Red Sox are blaming their failure to win the crucial World Series on an inability to keep up with the times. The Red Sox were recently destroyed four nil by the Oakland Athletics in what amounts to the semi-final stage. Infielder Marty Barrett immediately blamed the team's inability to win anything on an ignorance of the advantages of computers.

He said: "Other teams put a lot of emphasis on computers. We're an old traditional organisation and for some reason, we don't want to get into computers. We ought to conform."

Baseball teams often use computers to decide which players are best for which role, in much the same fashion as a sports management game.

In baseball, anything and everything can screw up a result, apart from a losing team's inability to be any good.

Red Sox manager Lou Gorman disagrees with his player. He takes the novel opinion that the game was lost on the field of play. He told the *New York Post*: "Computers don't win games, computers can't play third base and computers can't hit a baseball."

Still, Oakland's fancy for computers didn't prevent the team being stuffed by underdogs Cincinnati in the World Series. ■

## Systems for soldiers

The theory that today's computer games players will become tomorrow's high tech soldiers is enough to turn even the most battle hungry madman into a pacifist. But it's increasingly becoming a reality.

The next generation of tanks will not have normal gunsights - soldiers will steer and fight through video screens inside the trundling monsters. The display will be not dissimilar to certain games already available on home computers.

Research establishments in the UK, Germany and US are working on systems whereby tank crews can view a battle via television cameras and plan their strategy on computer aided maps generated at a central computer. The graphical maps would be updated every minute showing the tank's position and those of friendly and enemy forces.

The computer will be linked to four data buses - one carrying tactical information, one video signals, one for data communication and the last for driving controls. These machines should be ready within 18 months. ■



## Oric world sensation



Information starved Oric users and general computer buffs alike are to be treated to a new book; *Oric, The Story So Far*.

Thankfully, author Jonathon Haworth has steered clear of paranoid wailings concerning the machine's lack of tangible success. And despite the low rent presentation (it's less of a book than an oversized pamphlet), it's well worth the £1.50 asking price.

Haworth has dug up one gem of a quote from current computer industry person and All Formats Fair organiser Bruce Everiss. When, in 1985, he was appointed boss of distribution company Tansoft he made the uncanny prediction that he would "establish the Oric in its rightful market position".

For a jolly good read call the Oric User Group on 0296 26050. ■

# CONTENTS

## REVIEWS

### Mac emulator - the only choice

Check out a host of new and improved features - page 14

### Desktop graphics

Turn your data into pictures - see for yourself on page 70

## EVERY WEEK

### Games Week

News, reviews and special tips on the Damocles tours - page 66



### The Console Zone

Playing tips for your console favourites, plus news - page 68

### Learn programming fast

Our tutorial series gets under way - page 32

### WIN a laser printer

... and DPaint - page 78

### News

4-9

### Opinion

10

### Letters

14

### Tech Tips

74

## SHOPPING EXPRESS

Amiga	18	PC	23
Archimedes	19	Spectrum	24
CPC	21	ST	25
C64	22	Mac	27
		Centrefold	36
		Circuit City	52
		On-line	54
		PD Column	58
		Whole Wired World	62



• Sim City's out on the CPC





• Amiga: there will be a miniature version, but when?

## Amiga owners expect

The increasing army of Amiga owners is greatly looking forward to an Amiga portable. Not to buy you understand, just to relish, inspect and talk about.

For busy Amiga owners it would be neat to own one for the road. And the Amiga's graphical capabilities would make it a sure-fire hit with designers, architects and other high-end users.

Commodore has designed and built an Amiga portable which is currently gathering dust on a shelf in some North American workshop. The technology is there and so is the prototype.

An Amiga portable will appear, it's just a question of when and in what form. It's possible that a seriously heavy duty version will be launched along with the Enhanced Chip Set, high resolution colour screen and Workbench 2. Price wise we're talking £5,000.

There could also be a basic mono version aimed squarely at current Amiga owners who don't mind working in black and white. Something in the region of £2,000 would not be overly expensive.

Commodore spokesman Andrew Ball told Express: "The portable market has changed dramatically from being a technology-based market looking for applications, to a mature market relying on stable technology."

"It's really come of age now that people aren't lugging around 16 pound boxes, portables can slip nicely into your briefcase. It's the same with the Amiga. It's a case of waiting for the technology to stabilise and being ready for the market to mature. We'll launch an Amiga portable or a notebook or whatever when that happens."

Commodore watchers take note. Rumours are gaining currency of an imminent Amiga portable launch, and the stars of market readiness and technology availability which Ball talks of are entering conjunction.

## Mobile PCW: is it a good idea?

The late 1980s saw the first luggable PCWs. Produced by a company called Isenstein there were two models: a standard single-3-inch drive 8256, retailing at £499 and double drive 8512 which sold for £599.

Although neither version came with a hard drive and both were powered by an incredibly weighty lead-acid battery the company sold around 250 of the machines to what David Rathbone of Isenstein calls "PCW enthusiasts". The portables were boxy affairs with small screens, they were simply the normal internal workings of the PCW stacked and a keyboard fitted. After initial interest, the buying public moved away to concentrate on machines such as the Cambridge Z88.

This might not be the end of the story however. The PCW is ideal fodder for a portable conversion. Users are not looking for a high resolution screen; green on black will do. A hard disk is not common in the PCW world and would not be expected, thus lessening the weight of the machine. A 3-inch drive, or maybe even two, could quite happily be accommodated.

The PCW is also quite capable of taking 2Mb of on board RAM with only a few changes being made to the motherboard. With suitable backing from a major company it could be possible to run a CP/M operating system and a word processor such as LocoScript from ROM.

It is doubtful whether any of these ideas will ever be put into practice by Amstrad - the Isenstein experiment seemed show that a true PCW portable would not sell in large numbers; PCW users have already been wowed by the Cambridge Z88 - consequently Amstrad's widely expected Z88 basher is a good bet to cut into the market; and with LocoScript PC selling well it is a logical market move to use an MS-DOS portable such as the ALT286 series to wean PCW users over to the more lucrative PC compatible world.

# DESKTOPS ON

## Developer opp

Successful desktops always attract the scrutiny of those hoping for smaller versions. The Archimedes, Amiga and C64 portables are waiting in the wings - but their introduction is up for debate. Mac and ST portables are already available, with new versions expected next year. Even the PCW has been uprooted from the desk. In a special round-up Express looks at the major desktops and their offspring...

## Mobile madness

There is constant time span between the appearance of a proud new desktop computer and the moment when somebody pipes up with "where's the portable?" It is estimated to be 3.5 seconds.

Think of a computer and you've probably heard the rumour, pondered the prospects and seen the 'exclusive' story of a portable version soon to be unleashed. It's hard to size-up a successful machine without concluding that, yes, when all's said and done, a portable version would be a very good idea.

Hardware manufacturers are not immune to these fancies.

Most have agonised over the commercial prospects of sticking their machines in luggable boxes. Some have contemplated splashing out on some research and development in order to actually make their creations smaller, lighter and, ultimately, better.

Some, such as Atari and Apple, have actually managed to launch machines.

But what are the facts? Why, for instance, do we have an ST portable, but no such thing for Amiga owners? And how far can third party developers go to producing portables of widely used machines?



## Compaq joins the portable race



• Compaq 386: tops for speed.

Compaq has launched what is claimed to be the highest performance notebook PC available. The LTE 386s/20 features a 20MHz 386 processor, VGA colour display and a hard disk with up to 60Mb capacity.

The firm, which is currently

outselling competitors in the portables race, is offering an optional desktop expansion base into which the portable can be slotted. In this way users can obtain full portability and take advantage of a 5.25-inch disk drive, a back-up cartridge port and two expansion

slots. It also allows for connections to an external monitor and keyboard if desired.

Compaq has introduced two configurations of the notebook, the Model 30 incorporates a 30Mb hard disk while the Model 60 boasts the fully fledged 60Mb fixed disk. Prices are £3,995 and £4,295 respectively with the desktop expansion weighing in at £695.

It measures 21.6cm x 27.9cm and weighs 7.5 pounds. Memory upgrade cards are the size of a credit card and 2Mb is standard. It features a 9-inch VGA screen providing 80 characters by 25 lines. The display is edgelit (claimed to allow light to be diffused more evenly than the backlit versions) and sports 640 x 480 resolution in 16 grey shades for graphics based application.

Compaq managing director, Joe McNally, said: "PC users can now carry the power and functionality of a 20MHz 386 computer anywhere, anytime. This machine demonstrates that we're consistently on the leading edge of portable technology with smaller and more powerful machines."



# IN THE MOVE

## applies the Archimedes principle



• Archimedes: portable next year, but not from Acorn.

An Archimedes portable will be launched next year by a developer working independently from the desktop version's manufacturer Acorn.

The machine is being developed by London based software author and peripheral designer, Mike Harrison, who has been working on the project for the past year. Last week he said the machine would be ready at the beginning of the year.

In effect it's an Archimedes A3000 with 20Mb hard disk. A price tag of £3,500 has been suggested, although not fixed.

Harrison, 25, has written Archie software and designed add-on cards for Watford Electronics among others, and currently works in the computer centre of London University. He has "speeded up" the processor to an impressive 12MHz, and tweaked the machine to serve a colour LCD screen.

The finishing touches are being applied; Harrison's final problem appears to be getting hold of an appropriate carrying case. It will come with a standard 3.5-inch disk drive and 4Mb of RAM. Measurements are 35cm x 28cm x about 10cm and it will be sup-

plied via six batteries with a life of "several hours".

Harrison commented: "I've spoken to a number of dedicated Archimedes owners and they're all interested. Ideally, I want to go into mass production. It's not something for just word processing and basic business purposes.

"I expect initial interest will come from software developers who are crying out for a portable. Archie owners who need a portable and appreciate that it knocks the hell out of the Mac or PC will be interested.

"When it's ready I will be talking to Acorn and hopefully they'll be pleased that someone has bothered to do this. I don't think they're doing one of their own so they shouldn't mind too much. In any case, there's nothing to stop someone buying a machine, tweaking it, putting it in a new box and selling it on."

Acorn isn't thought to be lining up an official Archimedes portable, although informed sources suggest the idea was debated at length during a recent developers conference. No-one at Acorn was available for comment last week.



• Stacy: masterful with music.

## Stacy: moving music

When the ST portable - peculiarly dubbed Stacy - was launched in mid-1989, it was greeted with a degree of bemusement by the ST faithful. They saw an ST and it was luggable. However, it was beginning to dawn on even the most hardened Atari-phile that there wasn't a whole heck of a lot of point in the machine. For business and most professional purposes you might just as well have bought a PC.

Remarkable as it may seem, Atari had recognised this basic flaw at an early stage. Instead of attempting to cast pearls amongst the business community it focussed its attention on the area in which the ST excels - producing music.

In the event the entry-level Stacy, which was to be a battery powered model with no hard disk, never materialised. Atari's technicians couldn't quite get the power supply right. But the £1,700 20Mb hard disk version which was mains powered found favour among producers of professional music makers. They saw it as a portable MIDI tool and Atari cleaned up.

Now the firm is planning an STE version (see page 9) which comes with a 20Mb hard disk and is battery powered. The mains version will still be kept on (it is a success after all) and the battery powered STE will be pitched at a slightly higher price.

The STE desktop's advantages over its predecessor include an expanded colour palette of 4,096 (the STFM only had 512) and support for vertical and horizontal hardware scrolling. This will have little effect on the portable version since it's a mono machine.

But the STE also boasts stereo 8-bit Direct Memory Access sound instead of the inferior Yamaha YM2149 chip.

The only bad news is that, given the small number of takers at the bottom end of the ST portable spectrum, anything costing less than £1,000 is unlikely at present.

ST users and Atari had found a real use for a portable version of their machine, something which Amiga owners and Commodore appear to be having difficulty emulating.

## Macintosh heavyweight

The Apple Macintosh portable has been with us for a year now and has a solid user base. Its specifications are all you would expect from Apple, it comes with a state-of-the-art active matrix liquid crystal display (AMLCD) screen with a 640 x 400 pixel display size. The engine within the machine is the Motorola CMOS 68000 processor running at 16MHz which is twice as fast as the desktop Mac SE.

That's not the only Mac compatible portable on the scene; there's also a clone and talk of a smaller version for next year.

The original machine is impressive though. All the standard Mac ports are supported. These include seven external ports to cope with hard disks, printers and input devices such as the essential Mac mouse, graphics tablets, and even microphones and still video cameras. Also available to the power user on the move are serial ports for LocalTalk connections allowing connections to LaserWriter printers and AppleTalk system networking.

Although the Mac Portable can only be described as a luggable and



• Mac Outbound: works like a dream, but price wise it's a nightmare

can be run from the mains it is also battery powered, the lead-acid batteries will last for up to 12 hours and can be recharged.

As you would expect for all of this power and glory, the price tag is high. A Mac Portable 2/40 will set you back £2,855

These aren't the only options for Mac buyers. Australian firm

Outbound has launched a clone which is lighter and cheaper than the original. Macintosh computing rarely comes cheap and even that costs £1,995.

Not to be outdone, Apple is currently talking to Sony and the likely outcome will be a state-of-the-art notebook computer featuring sci-fi specifications.

## C64 portable — left on the shelf

Commodore actually did launch a C64 portable in the mid 1980s. It was manufactured at the firm's old factory in Corby and was a good little machine. The SX64 was really just a C64 with hinges, came with a heavy colour monitor and was a wee bit ahead of its time. Despite acceptable levels of success it was canned, but every now and again one will pop up in the second-hand market.

Intriguingly, Commodore built two new C64 portables a couple of years ago. Details leaked out and a few people got very excited. But they were little more than experiments.

Commodore has many forgotten prototypes and the design of these two machines was well within the firm's research and development budget.

The first featured a 1541 disk drive slotted at the back, while the better model boasted the 1581 which was fitted beneath the keyboard at the front. Both had green displays and could hardly be described as state-of-the-art. Insiders at Commodore don't believe these machines, or any C64 portable will appear and there's no reason to disagree.





• Rick Dangerous II: A superhero with a really square jaw.

## Dangerous returns

The Fat Man is back, and once again the only man who can save the world is Rick Dangerous.

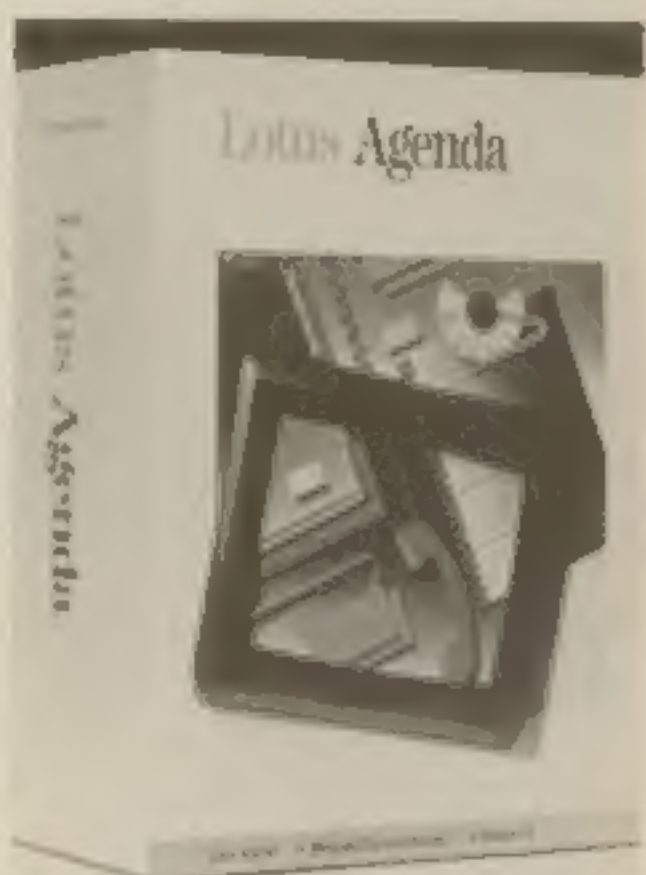
MicroProse promises bigger and better action in this eagerly anticipated sequel to the original Rick Dangerous platform game. Available in Spectrum, C64, Amiga, ST and PC formats, prices range from £9.99 to £24.99. Rick Dangerous II is in a shop near you at this very moment. ■

## Lotus on the agenda

Lotus wasn't just ending old battles last week (see opposite), the firm at last began shipping Version 2 of its personal information manager, Agenda.

Agenda II allows business users to organise their day and their work by cross referencing reminders, telephone numbers, ideas, dates and times. New enhancements include "improvements in ease of use" as well as printing, networking and customising facilities.

Four new starter applications are included in the revised version - Activities Planner for tracking day-to-day business activities; Account Manager for controlling information about clients; Information Sifter allows information analysis from imported sources and People Manager is a "resource management



• Agenda II: plan your time

tool" (it helps the boss check on employees).

Current Agenda users can upgrade for £95, but for first time buyers it costs £395. ■

## Fast food king chips in

If we told you that Burger King has become computerised you might have wonderful visions of a world where your burgers need never be touched by a greasy, acne-ridden, teenage hand ever again.

But don't build up your hopes, because so far the microchip has only invaded the company as far as its payroll system.

Burger King has installed a £600,000 employee database. Aside from handling the wages for the company's 5,000 or so staff, the system also keeps track of staff movements.

This is especially handy for a company which has to issue 20,000 P45s to departing employees every year. ■



• Burger King and chips to go!

Low cost games machine from the USSR 'des n

# SOVIET SPECTRUM LINED UP FOR U

A Spectrum compatible games console has been produced in the Soviet Union and its manufacturer is considering importing the machine to Britain.

It's based on the Speccy compatible Hobbit, built by Leningrad-based InterComplex. The firm only one of 20 in the Soviet Union producing Spectrum clones, however it is the only company to opt for a games console.

Essentially, the Hobbit Console is little more than a 48K Spectrum without a keyboard. Games are loaded via tape, and it can be hooked up to an RGB monitor or PAL television set. An optional keyboard can also be fitted relatively cheaply.

InterComplex is selling the console for 400 roubles (about £200) along with two games, a joystick and an introductory booklet.

By Colin Campbell

Director Mikhail Ossetinski claimed the machine has been redesigned to improve on the original Spectrum design and to avoid infringement of patents of Sinclair technology which Amstrad bought in 1985.

In the Soviet Union there are no copyright laws - InterComplex has only taken the trouble to avoid Amstrad's wrath in order to enter Western European markets. Ossetinski commented: "We've got a lot of very good contacts in the United Kingdom and we have received letters from people interested in our games machine. We will first be checking that the Hobbit console is durable and then we will be selling the machine to those people."

"Next month I will be coming to

England and I hope to talk to Amstrad about this. I want to sort out any potential problems."

Amstrad will no doubt be pleased of the opportunity for discussion. A spokesman told Express: "We will have to look at this very closely. We do own many technical patents for Spectrum technology and there could be problems if there are any infringements."

Amstrad fired similar warnings at Swansea-based Miles Gordon Technology when it announced plans for the Speccy compatible SAM Coupé, though the SAM retained compatibility without stepping on Amstrad's technical copyrights.

Ossetinski added: "We haven't copied anything. This is our version of existing technology." He estimates that the Hobbit Console is 12 per cent faster than the Spectrum 48K.

It is reckoned that within a year

## Fun time for history students

There is a quest almost as fruitless as the search for El Dorado, but educational software publisher ESM thinks it has finally struck gold.

The goal: to make history interesting for school kids. ESM's answer is Time Traveller, a history database cum word processor for the BBC micro and Master series.

The package comes as a set of three disks in an A4 ring binder. The

main program disk sets up a spreadsheet with scrolling dates from 9999 BC to AD 2100 down the left hand side of the screen. Pupils then insert the blank disk and enter historical events next to the corresponding dates. A sample disk, 100 Years Of History: 1891 - 1990, is also included.

As only one entry can be placed next to each year the idea is for

pupils to use Time Traveller to show the chronology of various linked events, such as the accession of monarchs or beginning of world wars. Different disks can be used for each chain of events and another facility allows pupils to 'open up' a year and add more details.

Available in December, Time Traveller will retail for £37.50. Call 0223 65445. ■

## Intel's tiny wonder

Intel has launched a highly integrated version of its 386 chip designed for use in portable computers.

The 386SL and its satellite chip the 82360SL could become the central axis of a 32-bit PC on a board measuring as little as four inches by six inches.

Intel is calling its latest chip a major technical step, not only because of the size of the article, but also its low power consumption.

The firm is also talking about a new architectural extension for power management, which could allow users a 50 per cent increase in battery life.

Vice president Mike Aymer commented: "Notebook computer users are asking for more functionality and they want 386 performance without compromising the system's size, weight and battery life." He added: "We expect to see many new features on notebooks, manufacturers can really get creative using these chips."

The two chips are compatible with PC applications which run on 80386 processors. ■



does not infringe' Amstrad's 8-bit copyright

# AMSTRAD SPECTRUM CONSOLE UK LAUNCH

there will be 600,000 users of Spectrum compatible machines in the Soviet Union. At present, there are about 20 companies producing different machines based on Sir Clive Sinclair's original design.

"The reason is that it is very cheap to produce. I hope that in two or three years we will all be using Amigas, but at the moment that is far too expensive," said Ossetinski.

He also claimed that the Hobbit console could be sold for "less than 200 roubles" with the company still making a profit. But undercutting competitors is frowned upon in the Soviet Union. However, it's par for the course here, and the Hobbit console could be sold here for much less than £100.

• Spectrum console: UK launch planned, but Amstrad will have its say.

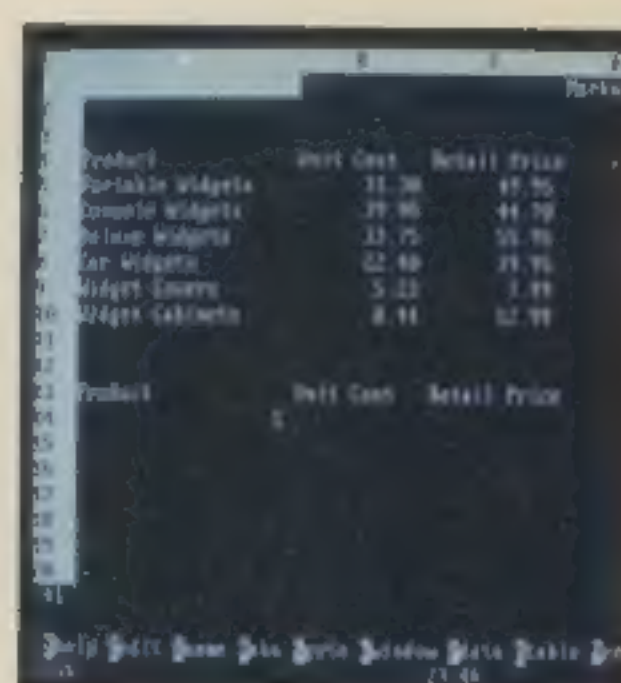


## Paperback write-off

The latest episode in corporate skirring has just ended with Paperback Software and Lotus Development Corp agreeing a six figure out-of-court settlement. This arises from the 'look and feel' suit relating to Lotus' 1-2-3 package and Paperback's V-P Planner.

Paperback agreed to pay \$500,000 (£260,460 at today's rate) and discontinue manufacture and sale of its package. Lotus claimed that the spreadsheet module from V-P Planner was copied "keystroke for keystroke" from its own. Paperback has also agreed to drop its impending appeal against a previous ruling. In the US, stocks of VP will be sold until the beginning of December, thereafter Paperback will have to destroy all spreadsheets left over.

The out-of-court settlement came swiftly after US District Court Judge Robert E Keeton ruled that Paper-



• A soon to be collectors item. The legendarily illegal V-P Planner.

back had infringed copyright.

UK users can still get their hand on what may well become a computing collectors item as Paperback's British branch is allowed to sell copies of V-P Planner until currently held stocks run out. Call 0245 265017.

## What a waste

A £3 million computer bought by the National Health Service 18 months ago is still not out of its packaging.

The IBM 3090 mainframe has never been used and now it's to be sold off for less than £1 million. It was originally bought in to handle the accounts of hospitals in the Hampshire area, but is currently lying in the corner of a warehouse.

Almost unbelievably, a special £1 million 'cooled office' is being built to hold the machine - even though it won't be used. The IBM computer is the biggest ever bought by the NHS, but a spokesman said the machine no longer fits into its Information Technology plans.

The Daily Mirror last week calculated that the wasted money could have been spent on 1,400 hip replacements, or cancer treatment for 500 patients.

## Philips steams ahead with launch of CD-I

Philips has finally released its multimedia Compact Disc Interactive (CD-I) system. Although the recent launch was aimed at business and professional users, it looks like it's full steam ahead for a full consumer system by the planned date of 1992.

The business systems as launched comprise the CDI 601 and 602. Both machines have digital sound and RGB, PAL and NTSC television standards. They also have memory expansion slots and RS232c communication ports and mouse control. The 602 comes with a 3.5-inch floppy drive.

CD-I features an impressive range of interactive media such as digital stereo audio on four levels, each having a different compression level and sound quality. There are several levels of visual input and output including 'full motion' video with all the functions you would expect from a home VCR such as forward scan and slow motion.



• CD-I at last: first systems launched last week

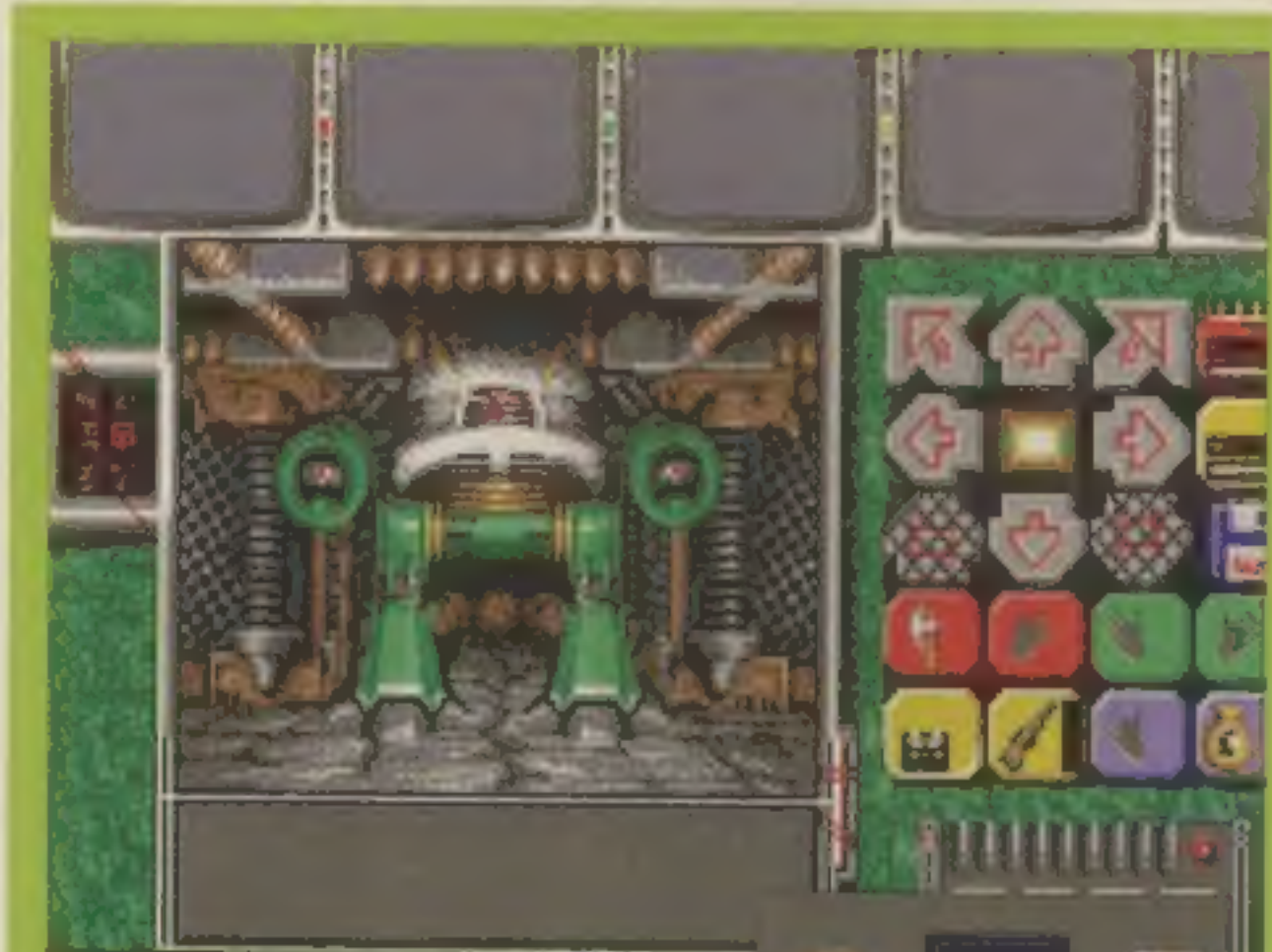
Still video is also included, is a system called RGB 555 which allows over 32,000 colour variations for each picture element or even pixel.

In the run-up to the public launch in 1992, Philips has been allying itself with over 100 developers and hi-tech producers. Big names such as Sanyo, Sharp, Pioneer and Yamaha have already pitched in.

While the business angle of CD-I is towards point of sale, presentation, training and demonstration applications, it is likely that the consumer launch will see interactive language learning

(Philips has already teamed up with Maxwell communications in this area). There are also plans for games - *Deja Vu* a Mac favourite - is already available in CD-I format, sports, a full sports encyclopedia is ready, and even a classical music jukebox. Education is also deemed to be an active area.

No statement relating to prices has been made, but with the growth on optical disc and digital audio technology already strong, and with other CD-based systems such as CDTV looming, 1992 could well see the start of a CD-I war.



• Captive: should be big

### Get Captured

You've been locked in a cell for 200 years for a crime you did not commit. Suddenly your chance for escape comes when you gain control of four robots. But you will have to guide them through hundreds of increasingly dangerous missions before you finally gain your freedom.

This is the scenario for Mindscape's much-anticipated new title, *Captive*. A fast moving adventure-style game featuring battle action as well as booby traps, thought-provoking puzzles and a strange race of shopkeepers. The playing screen represents the panel through which you control the robots and the animation is quite stunning.

Retailing at £24.99, the Amiga and ST version is available now, with a PC version to follow later in the year.



## SHOW NIBBLES

A mixed bag of shows have been announced for the next few months. It's time to get out the diary:

● The Mac User Show will take place at Olympia on 7-10 November. As well as launches and previews, the show will also feature a DTP workshop and sessions on the Mac in business and professional graphic design on the Mac. For more details phone 0256 83583. Tickets are available on 0734 333100.

● The Commodore Christmas Show will feature The Games Arcade, a "unique forum for software launches," claim the organisers. Find out for yourself at the Novotel Hotel, Hammersmith from 16-18 November.

● A Design and Technology roadshow specifically aimed at promoting CAD (Computer Aided Design) hits the road on 19 November in Peterborough. Exhibitors such as Hewlett-Packard, Research Machines and Roland will be demonstrating new products. Entrance to all dates is free. Ring 081-868 4466 for information on dates and venues.

● For comms enthusiasts Online Information 90 is due to take place at Olympia 2 on 11-13 December. For more information phone 0865 730275.

● The Society of Software Authors is holding its second Developers' Conference in Bournemouth on 26 January. Tickets are limited and further details are available by phoning 081-503 2521.

● The second MIDI Music Show will take place at the Novotel Hotel, Hammersmith on the 26-28 April. Over 160 companies will be taking part and the event is aimed at both professionals and enthusiasts. Phone 0726 68020 for further details.

## Students get a nasty shock

For a machine that is supposed to make life easier, the computer can make some people's lives a lot more difficult. Students are about to find out how as their worst nightmare becomes a reality: a computer which weeds out exam cheats.

Two professors at Toronto University, who were probably real swots at school anyway, have developed software which analyses the incorrect responses on completed papers and works out the probability of them being repeated. This information is cross-referenced with seating plans so that cheats can be pinpointed.

So no more sneaky glances at your neighbour's answers. But can the computer suss out the old hanky trick yet?

## Sinclair's road runner

Has Sinkers finally gone off his rocker? The "father of home computing" reckons he's going to solve a fair proportion of the planet's problems with a new invention. And we're not talking about the next Spectrum.

This time Sir Clive's come up with a four-seater car, which runs on nothing more than electricity. Remarkably his saloon can whizz 250 miles up the motorway at 80mph off one charge from the

mains.

Sir Clive's last attempt at an electrical vehicle was the C5 which didn't really set the world alight. This time he says he's got it right.

Sir Clive won't say when his machine will be ready, but revealed that it will have very few moving parts "so it won't run out".

Is this guy for real or what?

• Sir Clive and the C5.



Tempting offer from PCW to 286

UPGRADING  
ATTRACTION

A 286 PC is to be launched at the enormously tempting price of £299. And curiously it's claimed to be Amstrad PCW compatible.

Isenstein, which has always been active in the PCW arena, is hoping to attract PCW owners looking to tap into the PC's software base and upgrade to a much faster machine.

Anyone who does splash out

the £300 can simply rig the machine up to the PCW and take advantage of the installed monitor and printer.

The as yet unnamed machine is also being pitched at owners of aging PCs. If you own an old XT with a decent monitor, you could hook the VGA PC into your system. It runs at 16MHz, comes with 1Mb RAM and a 1.4Mb 3.5-inch disk drive. There's also a

video graphics controller. The only downer is that you'll have to buy a copy of DOS, usually at about £50.

Isenstein's David Rathbone commented: "It's great as a stand-alone computer, but I think upgraders will be attracted. They can take advantage of the peripherals and software already in their possession."

Call 0244 822768.

Ritz drops Singh  
hacking charge

Notorious hacker Edward Singh found himself in the clear last week when fraud charges were dropped against him.

This turn around in the fortunes of Britain's foremost computer bandit occurred only days before he was due to appear at Sutton magistrates court on charges arising from the Ritz video hack (Express 102).

Singh had broken into the video chain's system, changed files and showed how easy it is to undermine a 'secure' computer system. He and other hackers claim that the exercise was an academic one, rather than one with criminal intent.

It is likely that the case was dropped because no actual fraud had taken place, no physical mat-

ter had been stolen and Singh had not profited from the hack.

According to the man himself when he contacted Express last week, the Ritz chain and legal authorities "couldn't make it stick."

Had Ritz made use of the recently introduced Computer Misuse Act, things may well have been different. The mere act of hacking is qualified as a crime under the Act, which looks like it will be strengthened if a private member's bill tabled by Emma Nicholson MP comes to fruition. The MP's private bill seeks to make electronic eavesdropping, as well as hacking, illegal.

● Make sure to read Edward Singh's side of the argument on Express. The week in view column next week.

READ STEVE GOLD ON PAGE 32

## High flier

Two navigation experts from Ramsgate have come up with a portable device which has broken the mould in navigation technology.

Skyforce Personal Navigator works by calculating an aircraft's position by traditional methods - via fixed VHF radio broadcasts - then cross-referencing the co-ordinates with information it holds on 700 or so towns in the UK and along the coast of France. It then expresses the result in reference to the nearest town.

For example, if the plane is two miles south of Sandwich, that is exactly what the device tells you. No messing with longitude and latitude here.

And from next January the Navigator will be able to do the same for the whole of France, Germany and the Low Countries.

At about the size of a video cassette, the navigator is powered by a built-in battery. In flight, it runs almost automatically, strapped to the pilot's knee.

With a cost of just £500, the device is also several thousand pounds cheaper than the equivalent conventional navigation electronics.

## Feline Fine

Bob Cat has to rescue his beloved Claudette from an evil Mad scientist in *Nine Lives* from ARC.

A platform game with four levels, *Nine Lives* is available for the Amiga and the ST from this month and costs £24.99.



• Match Pairs: someone's not quite got the hang of the rules.

## Lavish child's play

Match Pairs is a classic child's educational game which now has a new dimension as a computer game.

Aimed at four to 12-year-olds, the Electronic Arts game is a memory test which involves turning over lavishly illustrated cards and attempting to make pairs.

Following its release in the US, the European version of the game has the option of being played in English, French, German or Italian, making it a fun way of expanding a child's knowledge of foreign vocabulary.

It has levels of play based on learning skills, ranging from non-competitive games to playing against a computer opponent with an infallible memory. Subjects range from flowers to the Big Bang and each time a card is turned over a computer voice says the name of the card.

Available from this month for the Amiga, Match Pairs will cost £19.99.



Atari to launch enhanced portable STE

# STACY STEPS INTO ACTION

A portable version of the Atari STE will be launched in January, Express can reveal.

As yet, no prices have been fixed for the Stacy STE although the current STFM model costs £1,799. The new machine will come with a 20Mb hard disk and 4Mb RAM. As with the original Stacy 4 it will run on a Motorola 698000 running at 8MHz.

The crucial difference is that, unlike its predecessor, the Stacy STE will run off batteries. Atari had planned to launch a low cost battery powered Stacy, but developers failed to perfect the technology.

However, the STE version will run off standard batteries with a life ranging from five to 35 hours (depending on use). The other major improvement will be stereo 8-bit Direct Memory Access sound. This replaces the old and inferior Yamaha YM2149.

The Stacy has been welcomed by musicians who use it for composition purposes and a MIDI tool. But although it can be hooked into musical instruments, its capabilities for making sounds alone have hitherto been restricted. It will also be possible



• Yet another addition to the ST range.

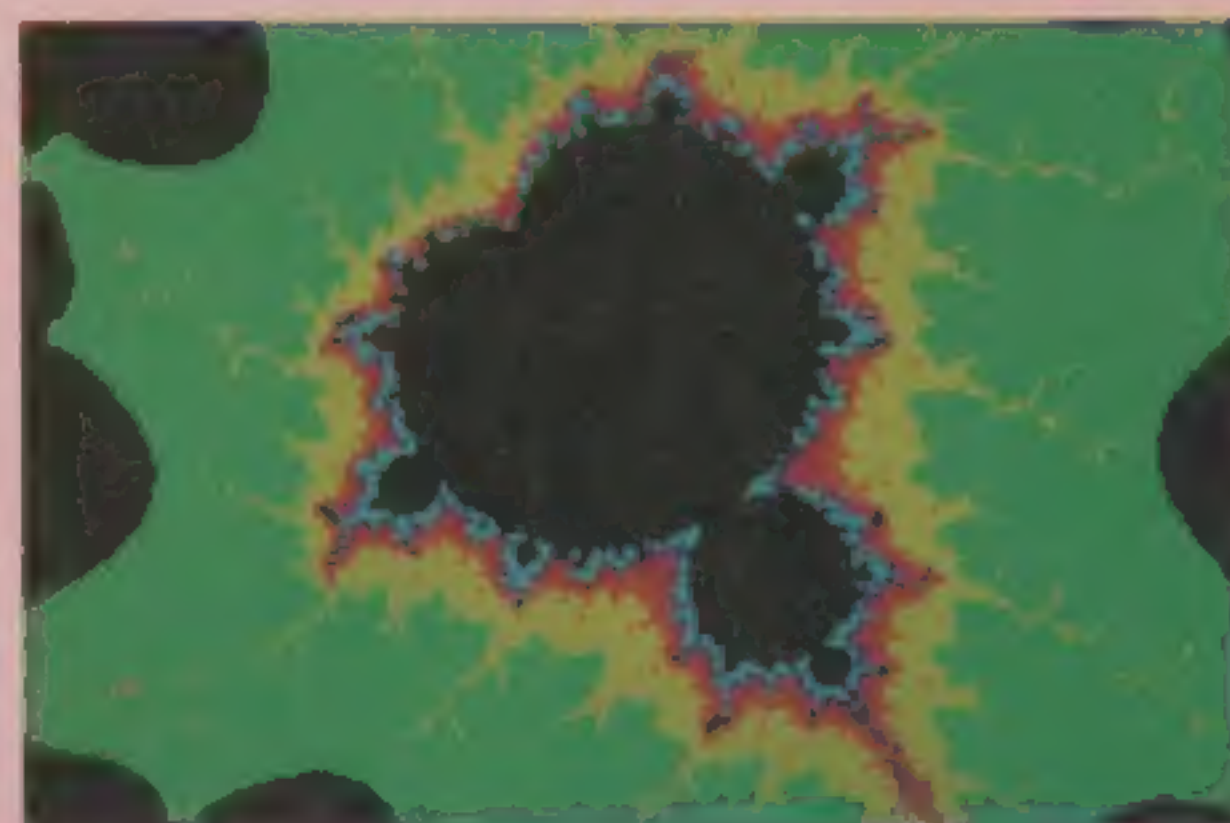
to play samples without affecting the machine's performance on other more important tasks.

The supertwist backlit mono screen is supported by 32K static screen RAM and boasts a

resolution of 640 x 400 pixels.

There are MIDI, monitor, serial, parallel, floppy, hard disk, RS232 and joystick ports with an optional 1200 baud external modem. It weighs 15 pounds. ■

## Fractals are go



The Catalogue of Chaos is the list of wares from Britain's first fractal specialist. The company is called Frachaos and it has just started to market disk-based fractal images for the PC and Mac user. Amiga and ST versions are planned "if demand is high enough".

Fractal images are becoming more and more familiar, they have cropped up in Star Trek films (the exploding Genesis planet), T-shirts and medicine. A fractal image is a repeat of form such as those which appear in nature – a snowflake is an excellent fractal example.

Frachaos will supply PD disks packed with fractal wonders, as well as full-priced images which can be bought as seen or even tailor-made to your needs. The company claim that the disks will contain fractals not previously available in this country. Along with computer-based fractals it will also be selling books, videos and 'fine art' prints.

Prices for the disk chaos start at a few pounds for the PD selection, while full images begin at £30 and go up to £250. Call 0326 40973. ■

## Ocean throws a lifeline

With a little help from its friends at Ocean, Childline will be getting its message across to gamers this Christmas.

Upcoming Ocean titles such as Robocop II, Total Recall, Narc and Pang will be among the first games to include information about the charity in their packaging. The information will only be put into the kind of games which

would appeal to younger gamers. Childline is a counselling line for troubled kids who need a sympathetic ear to turn to.

Ocean's Gary Braceley said: "Childline had a stall right next to ours at the PC show and I just got talking to the girl from Childline. She said that they were looking to get into a suitable youth market and the idea just came about." ■

## Atari two face jail in piracy scandal

Atari's Taiwanese subsidiary has been charged with piracy following the discovery of illegal copies of business software earlier this year.

Atari Taiwan has been indicted along with chief computer operator Kuo Mao Hsing and an employee Chen Jian Chung who is alleged to have brought pirated copies of Lotus 1-2-3 and dBase III into the company's offices.

If found guilty, they both face up to three years in jail and a fine of £300,000.

A raid last spring was initiated by the Washington-based Business Software Alliance. Chairman of the board, Tom Lemberg, commented: "The indictment of Atari Taiwan and two of its employees sharply illustrates the risks to an organisation when

there appears to be a lack of control and management of software resources."

Atari in the UK and US were again distancing themselves from the scandal. A spokesman in London said: "The situation is very confused, but we feel that it's all been blown out of proportion. We accept that this software was found on our premises, but stress that it was the independent action of employees." Atari is taking no action against the two accused.

Atari's US boss, Sam Tramiel, has already accused the BSA of pedantry, arguing that with the software industry losing millions of dollars through organised piracy outfits, its resources would be better spent elsewhere. ■



• Elonex 386sx: no frills, and a price to match.

## The price is right

If it's a serious machine at a reasonable price you're after, then at under £1,000, the slimline 386sx desktop PC from Elonex is well worth a look.

A 32-bit machine, the 386SX boasts 1Mb of RAM, a fast access 40Mb hard disk, a monochrome VGA monitor, MS-DOS 4.01 and Microsoft Windows, it costs £925. A model with a colour VGA costs £1,095.

Other standard features include facility for expansion of up to 8Mb of RAM directly on the system board and three AT-type slots, one parallel and two serial ports for system expansion.

So, while not a remarkable machine, the 386sx should be attractive to those who want the results without the frills. ■

## Budget action

Jungle action, aerial dog-fights, space adventure and an embassy siege provide the exciting backdrops for four new releases from Digital Integration's budget arm, Action 16.

Maya is an adventure set in the depths of the jungle, while Rotor provides arcade-style flying action. Meanwhile, captives in an embassy have to be rescued by SAS types in Hostages and Cosmic is a graphic challenge in outer space.

Originating in Europe, the games were favourably reviewed when first released, but failed to reach a wide audience, so Action 16 has high hopes for them this time around.

"They were good games when they were originally released, but did not have a high profile, so it's almost like a first time release," says the company.

Available for the ST, Amiga and PC (except Cosmic which is unavailable on the PC) they all retail at £7.99. ■



# THE WEEK IN VIEW

Is Europe really one big market for computers? Ex-pat writer Mike Hardaker ponders from his French chateau...

**A**t the Software Publishers' Association conference in Cannes this summer, I was struck by how many of the US delegates saw Europe as a single, homogenous market. At least that's the way they thought when they arrived in France. They left with some slightly more sensible ideas.

I suppose the Americans can't really be blamed for their initial view of Europe. After all, we do keep on shouting about 1992 and how it's all going to be so straightforward from then on.

The reality, of course is very different. Even if ERM and the Single Market do provide the economic underpinnings for pan-European trade, the local differences between countries can be pretty striking, not least when it comes to computers. Each nation has its own little quirks, which can result in a successful

British product having no chance in Germany, say.

For example, Apple has an incredibly high profile in France - wherever you go there seems to be a Mac

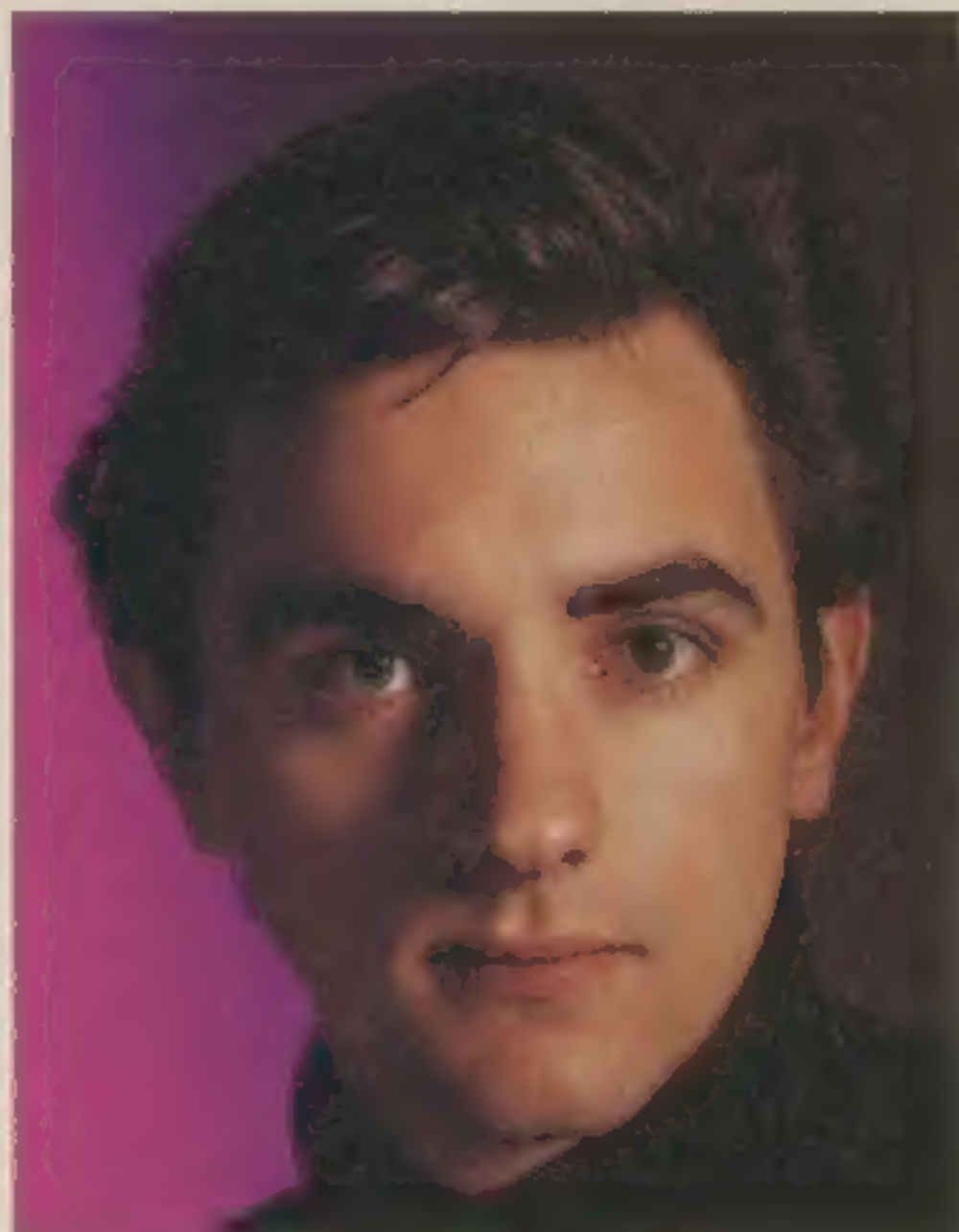
or two (the Apple II is still a big seller, for heaven's sake!). It's also Microsoft Country, where Bill Gates is quite definitely 'The Main Man.' Look over a PC user's shoulder and the odds are that you will see a copy of *Multiplan* up and running. Lotus 1-2-3? Forget it.

Germany, on the other hand, has almost no Macintoshes. German law forbids office workers to use the Mac Plus/SE 9-inch screen. This has led to the Amiga being used by professional designers in the same way as the Mac is in the rest of the civilised world. German Amigas don't run games: they have powerful graphics applications loaded on them.

Denmark is notable because GEM is the dominant GUI. Windows? Never heard of it. Very few software houses have bothered to translate their programs into Danish, but DR made an early commitment

and has reaped the benefits.

Europe as a single, homogenous market - it's an attractive idea, isn't it? Maybe one day... ■



• Mike Hardaker - computers in Europe are not yet on the same wave length

## COMING NEXT THURSDAY

**So what's so great about Unix?**

We've heard all about this wonderful operating system, but is it worth the effort?

**Why bother with...**

A new series looks at some of the so-called essentials in computing

### PLUS

- Hot news
- Front End
- Games Week
- The Console Zone
- Whole Wired World
- Centrefold
- Tech Tips
- Circuit City
- Express On-line
- Express Mail
- The PD Column
- Columns for: Amiga, Arc, CPC, C64, Macintosh, PC, Spectrum, ST

### AND

**Your chance to win an A3000 learning package**

**AT YOUR  
NEWSAGENT  
ON THE 7th**

Hey! Get in touch with us! *Express* is always on the look out for news leads and tip-offs - and we'll pay you for passing them on too!

Also, if you have any burning ideas for features or surveys then drop us a line - remember, we cover every aspect of computing.

## Express Access

You can contact us directly on:

Voice: 0225 442244

Fax: 0225 446019

(All news leads and tip offs will be treated in strictest confidence)

Or you can leave E-Mail for us on:

CIX @ astorer

GOLD @ 84:TXT152

COMPUSERVE @ 100012, 1075

PRESTEL @ P McDonald

**COMPUTER  
EXPRESS**

EDITOR • Andy Storer  
DEPUTY EDITOR • Stuart Anderton  
NEWS EDITOR • Colin Campbell  
ART EDITOR • Amanda Cook  
TECHNICAL EDITOR • Keith Pomfret  
STAFF WRITER • Tim Smith  
PRODUCTION EDITOR • Julie Tolley  
SUB-EDITOR • Steve Coulter  
NEWS ASSISTANT • Dave Golder  
CONTRIBUTORS:  
Steve Carey • Robin Alway • Jason Holborn • Rod Lawton • Hadyn Fitz-Williams • Mark Higham • Adam Waring  
Richard Frederick • Sean Masterson  
Ken Coumarin • Steve Gold  
ASSISTANT PUBLISHER • Jane Richardson  
CIRCULATION DIRECTOR • Sue Hartley  
ADVERTISEMENT MANAGER • Helen Kirkhope  
AD EXECUTIVES:  
Phil Davenport • Tim Partridge • Cheryl Beesley • Jason Spice  
AD PRODUCTION • Tracy O'Donnell  
AD TYPESETTING • Terry Turner  
PUBLISHER • Graeme Kidd

ABC audited circulation  
January-June 1990:  
21,251 copies per week

We regret we cannot enter into any personal correspondence. Technical enquiries should be addressed to Tech Tips at the address below.

While every care is taken in the preparation of *New Computer Express*, Future Publishing cannot be held responsible for the consequences of any errors that may occur.

© Future Publishing Ltd • 30 Monmouth Street, Bath BA1 2BW • Tel: 0225 442244 • Fax: 0225 446019 • Subscriptions: The Old Barn, Somerton, Somerset (0458) 74011 • Printed by Redwood Press, Melksham, Wilts • Distributed in UK and Eire by MMC Ltd (0483 211222), rest of world by Comag (0895 444055)



# ATARI ST

"E" & "FM"

## TURBO



THE OFFICIAL NEW ATARI  
520STE TURBO PACK  
has arrived!

Atari 520STE Computer Keyboard  
512K built-in Random Access Memory  
Built-in 5 meg Double-Sided Disk Drive  
Built-in TV Modulator  
Superb 4096 Colour Graphics  
8 Channel Digital Stereo Sound  
Four Joystick ports  
Light Gun/Pen facility  
MIDI inputs for music keyboards  
RAM Expansion capability  
Atari Mouse and Joystick  
... and all connecting cables to get you up and  
running on your home TV set.

Indiana Jones and the Last Crusade  
Dragon's Breath  
Blood Money  
Impossible Mission II  
Human Killing Machine  
Anarchy  
Outrun  
Super Cycle

STOS Games Creator  
HyperPaint II - uses all 4096 colours  
Music Maker II - uses the new stereo sound  
First BASIC Programming Language

Over 100  
games  
included  
in the  
package  
price

Includes  
all the  
cables  
you  
need  
to get  
started

Total package price includes VAT and Next Day Delivery by Courier\*  
Don't delay - Order now! 24 Hour Credit Card Hotline Telephone (0908) 378008

only.....

# £379

## DIGICOM

36-37 Wharfside Watling Street  
Fenny Stratford Milton Keynes MK2 2AZ  
Telephone (0908) 378008 - Fax (0908) 379700  
Showroom Hours - Mon to Sat  
9.00am-5.30pm

### How to order

By Phone - Simply phone 0908 378008  
On-line - Visit our website at <http://www.digicom.co.uk>  
By Mail - Simply send down your order form to:  
Digicom, 36-37 Wharfside, Watling Street, Fenny Stratford, Milton Keynes MK2 2AZ.  
By Fax - Fax your order to 0908 379700.  
By Post - Send your order to:  
Digicom, 36-37 Wharfside, Watling Street, Fenny Stratford, Milton Keynes MK2 2AZ.  
By Email - Email your order to [orders@digicom.co.uk](mailto:orders@digicom.co.uk).

### Our catalogue

Ring or write in for our latest Atari catalogue listing  
hundreds of products available from this versatile Home  
Computer. We stock COLOUR PRINTERS, STEREO COLOUR  
MONITORS, EXTERNAL DISK DRIVES, MEMORY  
EXPANSIONS, HARD DISK DRIVES, Atari BOOKS, FRAME  
GRABBERS, DIGITISERS, SCANNERS, WORD  
PROCESSORS, DATABASES, SPREADSHEETS,  
ACCESSORIES and of course hundreds of hundreds of  
games available well below recommended retail prices!

Digicom offers you the very best in customer service, sales  
support with 24 month warranty on all Computer Hardware.  
All units are full UK specification with 30 day replacement  
guarantee on faulty items and FREE collection of the  
defective units within this period. And should you ever  
need advice our experienced and helpful  
staff are on the telephone or in our showroom  
ready to help. No hidden extras, all prices are fully  
inclusive of VAT and next day courier delivery.  
Prices are guaranteed to be the lowest in the UK.



## ■ Buckets of praise

Like the rest ■ Joe Public, I am quick ■ put finger ■ keyboard and run off a letter informing ■ and sundry of any injustice I feel I might have suffered at the hands of another, normally a mail order company.

Not so many write in to compliment firms who offer excellent standards of service; well I'm going to set the record straight.

I unconditionally recommend Gordon Harwood Computers, a company that advertises regularly in *Amiga Format*, to any of your readers.

I have used them several times in the past to purchase both a monitor and blank disks, and have found their telesales staff both courteous and efficient. On Monday ■ September I ordered an A590 with 2Mb of RAM expansion installed. It arrived Wednesday 26 September, but unfortunately, although the RAM was fine, the drive didn't work.

I rang Gordon Harwood Computers first thing Thursday 27 September and without so much as a hint of quibble, they arranged for a new A590 plus RAM expansion to ■ delivered by courier (at no additional cost to myself) the following day. On Friday the new drive was delivered and I'm glad to say that it is working just fine – how's that for service?

I'll finish by saying I think your new format is a vast improvement, although I've read and enjoyed *NCE* since issue one, and will be sure to include a subscription on this year's Xmas list.

Patrick J Cleary, Harlow, Essex

Not relation to Gordon, I trust... Well, it's nice to hear someone offering praise rather than complaints, Patrick.

H F-W

## ■ Bye bye Beeb

I am a BBC micro user. You recently dropped the column dedicated ■ my machine. I have just one thing to say: Good riddance!

Well that surprised you, didn't it? You thought I was going ■ whinge. But no, I fully commend your decision to dispense with the measly quarter or eighth of a page, barely enough room to print a single headline, in favour of more news, more features, more competitions, and, in short, a better magazine. Congratulations.

I have bought every *NCE* since issue 25, and have consistently found it interesting, informative, and, above all, a refreshing change from those tedious monthly potboilers. Incidentally, further congratulations are due on finally dropping the ridiculous 'Top 50' guides, which were a complete waste of space. Centrefold makes a superb replacement; I look forward to reading Tim Smith's wit and repartee every week.

Rafael Jay, Weston Road, Bath

I'm not sure that Tim Smith's ego can stand much more of this, RJ. We've already had to extend the office to accommodate it!



# EXPRESS MAIL

Back from the USSR  
Haydn Fitz-Williams  
takes up the reins  
once more and  
answers your mail

Write and tell HFW what you think about anything under the Sun! Reach him at: **Express Mail, 30 Monmouth Street, Bath BA1 2BW.** Sorry, no personal replies, even with an SAE, as we're too busy writing the magazine.

By the way, a 'potboiler' is a work of literature that is written just to earn enough money to boil a pot with – in other words, to keep body and soul together. Etymology is all part of the service...

H F-W

## ■ Begging letter

Congratulations on reaching 100. Did Lizzy Windsor send you a telegram – or maybe Phil-the-Greek did the honours? If ■ didn't for gawd's sake don't mess around with his 'BT Gold' Mail box. Just in case it's still in there – remember what happened to the last two blokes who did that!

I have bought your mag since the very first issue and, unlike the other thousands of sycophants writing letters ■ the hope of a 'fiver' I can prove it! – I had a letter published in Issue 2 or 3, so I reckon I deserve a 'fiver' (or more) as a 'long service' award, don't you? (Go on check down in 'archives' If you don't believe me – but watch out for Editor-eating spiders down there, won't you)? I promise not to spend the fiver on 'naughty' P D software, I will use it for a charitable purpose – putting overpriced lead free petrol in my dehydrated Ford 'Nutter-Bastard'!

Note also: I have never written a boring letter along the lines ■ 'my N-Cube is better than your ZX81' or complained when the minority computers were scrapped or any rubbish like that. Look forward ■ receiving the cash soon – oh – here's to the next 100!

D Griffith, Hammersmith, London

Us? Hack? It's about as likely as *NCE* receiving a telegram from the Queen. And just because you have been a loyal reader, you can't expect your begging letters to work Mr G.

H F-W

## ■ Computer gardener

Evesham Micros recently had a clear-out sale, including some MicroProse games for the CPC on 3-inch disks at 99p each. My apologies ■ ■ other 3-inch disk users for

having snaffled the lot; I was delighted to get half-price brand new Amstrad disks and my nephew was delighted with the 'free' games on the half-price disks ■ bought.

To answer the query posed just before you dumped the PCW column: I carry on using a 8-bit machine for the same reason I still use a wheelbarrow and hand fork in the garden – I don't need a tractor and power tools in the garden, and for the use I make of it, the PCW is good enough.

Furthermore there is loads ■ dirt cheap shareware and public domain software. That's even before your sister magazine *8000 Plus* came out with its special offers.

I was tempted to dump your magazine after you dumped the PCW column, but hang it all, where else can I find such up-to-date info on the whole computing scene along with articles I feel I have to keep (just in case I ever do buy another machine)?

Don Price, Redditch, Worcs

So it was you, was it? I had hoped to pick up a few cheapie disks myself, as my mother lives ■ Pershore and I usually drop by Evesham Micro's shop when I visit her, but by the time I got there, the deal was over and done.

Anyone else in the Evesham area on the morning of Saturday 17 November might like to call in at the new Evesham Micro showroom which ■ being officially opening ■ 10 o'clock that morning. Apparently there will be some extra special bargains on offer. It's at Unit 9 St Richard's Road, by the way...

They won't be selling gardening tools, however, Don.

H F-W

## ■ When is a bug a bug?

I'm afraid that I have ■ disagree with your reply to Stephen Ward's letter in *Express* 102.

Whilst it may be the case that many bugs aren't bugs at all, but just a simple

matter of the user not reading the manual properly, I feel that whether you pay £2, £20 or £200 for a game or program it should work perfectly with no bugs. A game costing just £2 would be very simple, with maybe only one level and wire frame graphics. A £20 game would have more levels and better graphics, and a £200 game would be out of this world, but whatever they cost they should all work with no errors.

Now onto the new look *Express*, I like it very much and I accept your reasoning for dropping the columns for the older minority machines. The layout of the magazine is better and I have no objection to the ST column being printed on re-cycled bog paper. However, I don't like Centrefold as it's not my sense ■ humour. I wouldn't stop buying *Express* just because of it but I do tend to skip past it now rather than read it. Centrefold that is, not *Express*.

Finally what about printing a Rogues' Gallery of the *Express* staff? We see Keith Pomfret's picture ■ Tech Tips each week how about mug shots of the rest of the team?

P J R Mead, Wallington, Surrey

You're quite right, of course – 'RTFM' as they say ■ certain circles. And it's good to see that someone ■ having a go at deflating Tim Smith's ego.

As to the Rogue's Gallery – are you REALLY sure you want this? Have a fiver for you comments on software, and ponder your strange request...

H F-W

## ■ Ultima delay

Any chance of finding out when *Ultima V* on the Amiga will be out? I sent me dosh off for the game in March. I phoned a certain mail order company in May and they said June, then July, then August, then September. I got jerked off waiting and they allowed me to get a couple of other games instead.

They're still advertising the aforementioned game as available. Under the Trades Description Act or possibly the



# MAIL SHORTS

## Well spotted!

Haydn Fitz-Williams - you ruined my read of the 100th issue of *NCE*. There it was on page 14, for all the world to see. (Well me at least). The dismembered body of my last letter to *NCE* in the Mail Shorts, chopped up and rearranged to suit your unclean methods of filling space in the *Express Mail* page.

Mr Williams you've been rumbled, you have openly set out to corrupt an innocent letter and deliberately mislead the readers of *NCE*. I demand an apology be printed in *NCE*, and the bits of my letter you did print, to be printed in full truth as they were written, although an apology will do.

What do you mean by 'r' in intellectual?

A Geordie, Near Sunderland

It's a fair cop, but the person who typed in the letters is to blame.

H F-W

## Sex machine?

Thank you for printing the letter about my Oric Atmos computers in Issue 94. In reply to Richard Blakeley's letter (issue 101), the Atmos has made us better lovers because its wedge-shaped case allow us to wedge the bedroom door shut to prevent any interruptions from our 6-year-old daughter. We are considering upgrading to a ZX81 as it has better shaped casing.

R W Crisp, Meanwood, Leeds

I wonder how long it will be before Dr Comfort sits down to write another best-selling book called *The Joy Of Computers?*

H F-W

## In training

Your readers might like to know that most of the games featured in your article about Spectrum railway games are also available for Amstrad, BBC and C64 (on tape or disk) and that all games are available by mail order from 20 Moorville Drive, Carlisle.

I have also produced a Spectrum 'Carlisle Power Box' traffic control, priced £11.95, which has a full colour moving track diagram.

Ashley Greenup, Carlisle

## Rather rude

A few years ago the computer manufacturers 'Wang' decided to move into the British market with an advertising campaign that proclaimed "Wang cares" (say it quickly). Needless to say the campaign was withdrawn.

C Stevenson, Heathfield, Sussex

advertising standards are M.O. companies who do this liable? That is, if they do not make clear that the game is not in stock - or even produced yet for a particular computer - as per their ad. It seems they are being a wee bit 'economical' with the truth. This is the first time I've been caught like this - MJC Ltd of Herts sent my cheque back and told me to phone later when I ordered *Middle Earth* at the beginning of last year, an attitude which I found extremely commendable.

D Magill, Cheltenham, Gloucs

Your wish is my command. According to Mindscape, *Ultima V* is due to ship in a couple of weeks' time - if you have any difficulty, get in touch with Mindscape's Mail Order department on 0444 441066. And ask that pesky mail order company for your money back - it's very naughty to advertise goods that you don't have in stock as being available. Both Trading Standards and the Advertising Standards Authority might be interested in hearing from you...

H F-W

## User space

The problem that Mr Ward has experienced with the DELETE RAM#? (mentioned in Issue 102) is one that I have come across myself. The problem is not the instruction but an erroneous user space.

Typing: DELETE RAM[space]#? will delete all files on the current drive. If you doubt - me try it. I made the mistake once and it cost me the entire content of my

devpac source disk. Needless to say, I have not tried it again.

As for your *Amiga Format* technical advice (sick) - is 'PLONKER' the best they could come up with?

My God! The septic patronising remarks they come out with, they must think the entire population of computer users are on the same level of intellect as themselves.

Sorry about that, but I do not find asinine replies amusing, especially ill-informed ones.

Mr C W Cannon, Romford, Essex

Asinine indeed! Can I help it if I quote the *Amiga Format* technical editor verbatim? No I can't. But at least you have cleared up the confusion Mr C.

H F-W

## Turing test

My computer is not better than your computer. Nor is the Met Office's Cray super-computer at all superior to my father's Psion Organiser. Indeed, every programmable computer in existence is completely equivalent to every other one.

Alan Turing proved in 1937 that all universal Turing machines have precisely the same capabilities and effects. All general purpose computers are in effect sophisticated universal Turing machines. Therefore all computers, given enough external storage space (disks, cassettes, etc) can perform all the same operations as one another.

Turing's original design for the

machines was a box which could read, write and move an infinite tape with a finite amount of data on it. The box had a finite number of internal 'states' which, along with the data on the tape, controlled its actions. The tape would be marked off into squares, and the machine would read a square, cross-reference the symbol on that square with the internal state it was currently in, and find out which state it should go into, what it should change the symbol to, and in which direction it should move the tape to find its next piece of data. The machine would originally be fed with a tape containing the operations later, with the result of the calculations now on the tape. Turing proved that any mechanical or computable operation whatsoever could be performed in this way.

A universal Turing machine is one which takes in on the tape the list of its states and the instructions pertaining to each state. This is equivalent to any programmable computer, and therefore any computer, from the ZX81 upwards, can perform the same operations as any other.

So if anyone out there owns a NeXT workstation and cassettes, you can contact me through F-W secure the knowledge that you are getting a good deal.

Leigh Caldwell, Langside, Glasgow

Not 'exactly' the same capabilities and effects, Leigh. For a start, the Cray can do any given hard sum considerably faster than your Dad's Psion... but an interesting twist to the 'MOIBTYC' debate

H F-W

## Show off...

I thought that I would drop you a short letter showing my eight computers, but why oh why did you not do this three weeks ago when I had ten computers? I have just sold my C64C and disk drive to my cousin, and my Sinclair Z88 to a man in the Isle of Man. That was of course sold through your free readers ads (grovel grovel). I think with ten computers I would have had a fair chance, but if not I'll settle for seeing my name in your mag.

I suppose that while I am writing I will add my 10 pence worth on the subject of what the best computer is, and that of course the one you are using at the present moment in time. Any computer that gets anyone interested in the art of computing is a good one.

If you have the money buy a bigger and faster one if that's what you want, but don't run someone down because they can't afford or do not want a 16-bit or 32-bit machine. I am more than happy to play around on my BBC B than any of my other computers. Unless I am using an art program (*Canvas* is my favourite at the moment) then I use my 520 STFM.

Lastly, I like the new layout of the mag. But whatever you do someone will complain about it, I mean saying you will not read this mag any more because you



• The very fine Toomey collection

dropped a machine specific column is stupid. Take the Atari 8-bit column, it had a quarter of one page - that's less than half of one per cent of the total magazine.

To stop reading just because of that is just plain stupid. That was all they were interested in why did they even bother to buy it in the first place? Surely buying a machine specific magazine would have been better, but I guess that's being too sensible. Anyway, as I was saying, thanks for a great read and I for one will keep buying each week (especially if

you send me some lovely wonga for having the most computers)

I often read the word (sic) in your comments what does it mean?

Mr S P Toomey, Croydon, Surrey

Well, alright then, I'll send you a couple of fivers for your collection. It'd have been more if you were the kind of person to own a Mac IIx of course...

Anyone else out there care to have a go at beating Mr Toomey at his acquisitive game?

H F-W





# EMULATION SENSATION

Ready Soft's acclaimed Mac emulator returns with a host of new and improved features. Jason Holborn checks it out.

Let's face it – we'd all like to own a Macintosh. Steve Jobs' masterpiece of computer design has earned itself the rare privilege of being something of a cult computer. But, mainly due to the high price that they demand, Macs have remained the tools of wealthy publishing companies and yuppie businessmen. What is the average computer user to do?

The obvious solution is to buy an emulator. For Amiga owners, ReadySoft's A-Max is the only choice. However, due to several major limitations within the original, A-Max failed to be accepted as anything more than a curiosity. Now, after just over a year of rumour and speculation, ReadySoft has finally released the long awaited follow up.

## BIG MAC AND CHIPS

A-Max now comes in two different flavours – an all-new internally mounting card for those of us who are lucky enough to own Amiga 2000s and 3000s and a plug-in cartridge version for those people with somewhat humbler machines. Unfortunately, ReadySoft is still at work on the card version of A-Max (that probably won't be out until January of next year!), but A-Max II for the A500 is available now.

The first thing you'll notice about this new release is that the emulator hardware hasn't actually changed – that infamous grey block still sticks out at the back of the 500 with about as much elegance as Commodore's own TV modulator. Indeed, A-Max II is largely a software-based upgrade, which is great news for those of us who already own A-Max version 1 (you can upgrade for £30).

Just like the original, A-Max II won't do anything until you've installed a set of Macintosh ROM chips inside the cartridge. Luckily for A-Max II users, Entertainment International (ReadySoft's UK distributors) has sorted out the problem of obtaining Mac ROMs for A-Max, so it's now possible to buy a complete A-Max system in one go (although this tends to add about £100 to the price!).

So we're ready to rock... or are we? Well, here's the bad news – before you get to see anything even remotely Mac-like, you have to carry out a fairly simple (this is what ReadySoft claims anyway!) installation process. This involves building a boot disk for A-Max II consisting of the Mac 'System' and 'Finder' files. Unfortunately (again), you're going to need access to a real Mac to be able to obtain these files (if you don't

know anyone with a Mac, then you're in real trouble!).

To allow you to bring these two files across onto an A-Max compatible disk (the basic version of A-Max II can't read Mac disks – contrary to rumours), A-Max II produces a special format disk that can be read by both the Mac and the Amiga. This 'mini transfer disk' can only hold 272K, so you may have to strip down the Mac System file considerably – removing fonts and desk accessories – to make the system file fit. Once this is done, you're in business.

## HARD FACTS

One of the biggest complaints levelled at the original A-Max was the inability to access hard drives during Mac emulation. For Amiga owners, a hard drive is nothing more than a luxury, but for Mac owners, they're a necessity. Some larger applications (Quark XPress springs to mind) won't even fit on a floppy disk, so you've got to have a hard drive if you wish to run them.

ReadySoft has thankfully remedied this within A-Max II. It's now possible to access hard drives in two different ways. The first (and possibly the best) method is to connect a Mac-formatted SCSI drive directly to the Mac using one of the many SCSI interfaces available. Many hard drives (including Commodore's own) have SCSI interfaces built-in as standard, so fitting a SCSI drive to your Amiga is a fairly simple task. This will allow you to access a hard drive that can also be used on a Macintosh, thus allowing you to share a drive between the Mac and A-Max (although having a Mac defeats the object of owning A-Max in the first place!).

Secondly, A-Max II can now create a Mac-format partition on an Amiga hard drive. Although this will require you to reformat your drive, you can create up to eight Mac partitions, all of which A-Max can access simultaneously.

A-Max II uses custom controller card drivers specifically written for particular makes of hard drive controller. Although the list of available drivers is rather limited at the moment (although the major brands are supported – CBM, GVP etc), ReadySoft has made available the information required for third party vendors to produce their own drivers.

SCSI support also extends to allow Mac SCSI peripherals to be used directly from within A-Max. These include such wondrous devices as laser printers, scanners, etc.

## WHY DO YOU NEED

"Why on earth should I want to make my Amiga pretend to be a Macintosh?" I hear outraged Amigaphiles around the country cry. Well the truth is, hard as it is to admit, the Mac simply has software which is a damn sight better than anything the Amiga has to offer – and that goes for mundane stuff like word processors and spreadsheets as much as for whizzy multimedia kit.

For a start the Mac can handle colour properly; no messing about with HAM and interlaced modes, the Mac offers 24-bit colour to all who want it, with the latest versions of QuickDraw, the Macintosh's graphics system, supporting an incredible 32-bits of colour information. 24-bit colour really puts the Amiga to shame. To get an idea of how many different colours that is, imagine a monitor which changes colour every time the screen is refreshed – that's over 50 times a second. How long do you think it would take to display the entire colour palette? Five minutes? An hour? Try six months; that's a lot of colours.

Where the Amiga does score is in its multi-tasking – the Mac's feeble MultiFinder only allows instant switching between applications, not background running of tasks.

However the main reason for Mac emulation is not the hardware or system software, but the applications. Word processors like Microsoft Word, DTPs like Quark XPress, graphics software like Adobe Illustrator and indefinable software like HyperCard is all infinitely superior to the equivalent Amiga software – and costs three times as much to boot.

A nice touch with Mac software is that it's easy to pass data between different applications; a Clipboard and Scrapbook allow text and graphics to be freely swapped between programs.

But to get the Mac in perspective, it's a hell of a lot more expensive than an Amiga, even in its new Classic robes; the software, though excellent, costs a fortune; and you can't play *Shadow of the Beast* on it.

## 2000 PLUS

For Amiga 500 users and upwards, ReadySoft's hard work on a dedicated Macintosh on-card emulator has produced something pretty special. Here's what it has to offer:

**INTERNAL FITTING** A-Max II Plus is a plug-in card which connects internally to the Amiga 1500 upwards. It's also possible to run Mac/PC and Amiga software from a single self-contained system box.

**MAC FORMAT DISKS** With Plus, you can directly read and write to Macintosh format disks from standard Amiga drives.

**MIDI COMPATIBILITY** Run such well-respected Mac music software titles as Cubase, Performer and Master Tracks Pro on your Amiga. To take advantage of this facility, you'll need a standard Amiga MIDI interface connected to the serial port.

**MAC SERIAL PORTS** Talking of serial ports, Plus provides two Mac compatible serial ports, therefore allowing it to take advantage of Mac serial devices.

**APPLETALK COMPATIBILITY** Plus is fully compatible with Mac Appletalk Networks and peripherals. It's now possible to directly connect the Amiga to such devices as Mac laser printers etc.



## SOUND IDEA

Also new within A-Max version II is support for Mac digitised sounds. At last you can set A-Max II up to play all those silly sound effects that make using a Mac such fun. Using a desktop accessory called *Sound Master*, it's possible to assign samples to different aspects of Mac operation. Already my A-Max is set up to play a sample of Arnold Schwarzenegger saying 'I'll be back!' when a disk is ejected, Steven Fry saying 'There is nothing to be afraid of' when a damaged disk is inserted, plus the classic Monty Python line 'Ekki Ekki Puttang shulwulup' when A-Max is closed down.

## SCREEN SCENE

On a standard Amiga, A-Max can operate in both medium and high resolution screen modes (although the latter suffers terribly from the problems of interlacing). A-Max II can also take advantage of both the Enhanced Chip Set and big screen monitors such as the Monitorm and A2024 (Commodore's own high resolution mono monitor). However, unless you're lucky enough to own such luxuries, you'll probably end up using A-Max in medium resolution (high resolution hurts too much!).

Obviously the most important factor of any emulator is how well it can emulate. After raiding a friend's Macintosh, I was able to test such packages as Quark XPress, MacWrite, MacPaint and the all important *Tetris*, all of which worked fine. The speed of emulation is also pretty impressive – although screen update can sometimes be a tad slow, programs seem to run at an impressive speed. However, if you've got a processor accelerator fitted to your Amiga, then A-Max II takes full advantage of it, allowing emulation speed to increase by as much as a factor of five!

About the only software that won't work with A-Max are those oh-so clever utilities and games that like to do weird and wonderful things with the Mac hardware. If you try running a program of this type, expect a visit from the old Mac System Error requester (the Mac version of the Amiga Gurus!).

To conclude – A-Max was good, but A-Max II is great. ReadySoft has fixed all the problems and answered the criticisms levelled at the original, turning the A-Max system into a feasible alternative to a real Mac. But just wait until A-Max II Plus arrives!

## A-MAX INFORMATION

The A-Max II is available Europe-wide from Entertainment International, which can be reached on 0268 541212.

It is priced at £169.95. This includes emulation software, drive software, utility software, hardware cartridge and full documentation.

Designed in principle for semi-professional use it will run 99 per cent of Apple productivity software (including *XPress*, *PageMaker* etc). If it has a weakness, EI admits, then this is probably in its MIDI uses and in the range of games available to it. But then if you already own an Amiga you don't really need any more games do you?

EI denied it is in any way intended to compete with a full Macintosh. And with the cheapest Mac now available for £550 this would indeed be foolish. Instead, it is hoped the A-Max II will appeal to students and anyone else who would find Mac utilities useful, but not crucial enough to warrant a big spend.

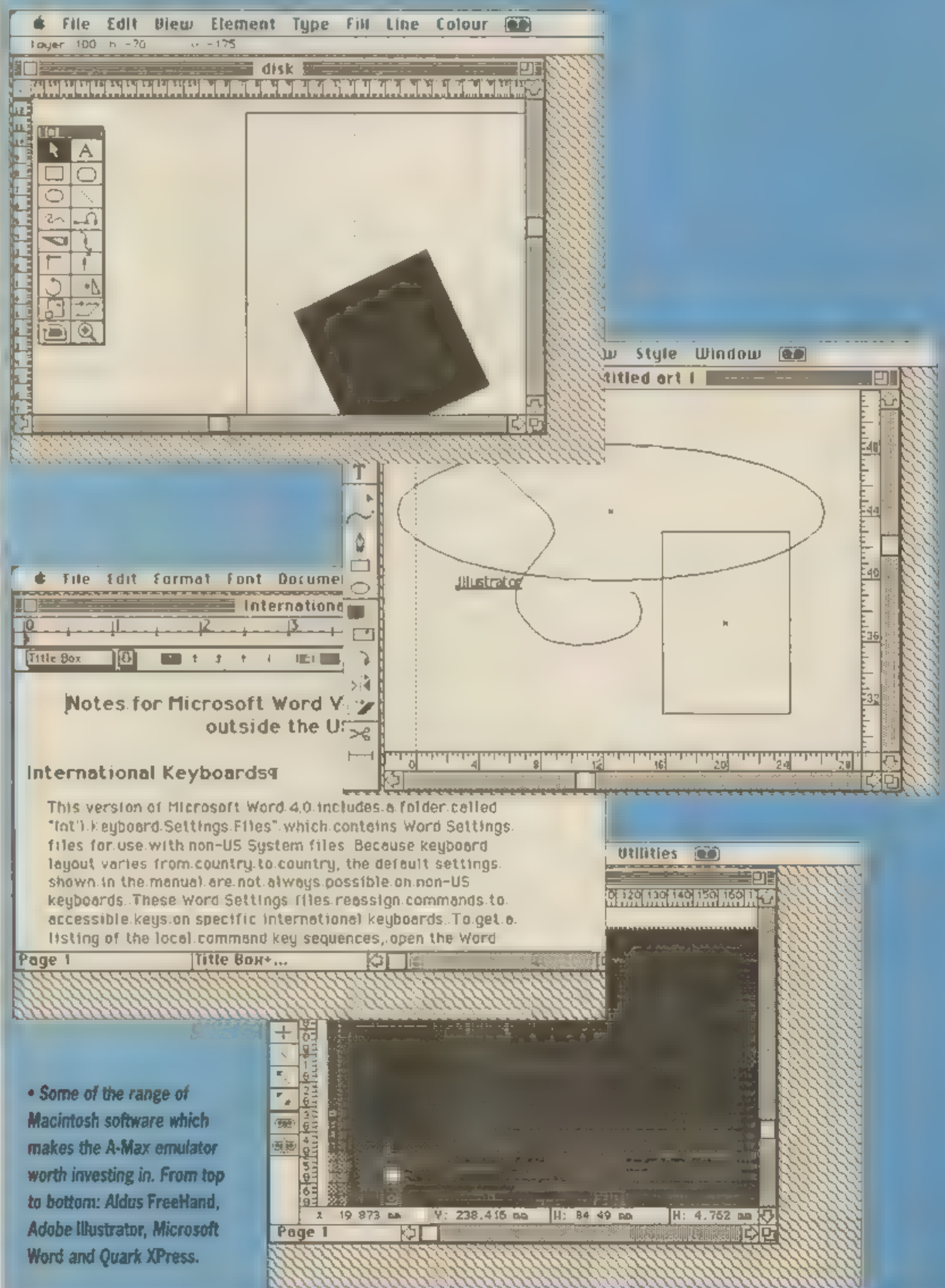
The A-Max II Plus is due out in January at £450. This will feature connections for Apple Talk, allowing networking and other goodies and is to include two Mac serial ports.

## GO FROM THIS...

• A-Max gives you full control of the screen mode and other variables prior to launching the Mac emulator by clicking on 'Go A-Max'.



## ...TO THIS



• Some of the range of Macintosh software which makes the A-Max emulator worth investing in. From top to bottom: Aldus FreeHand, Adobe Illustrator, Microsoft Word and Quark XPress.

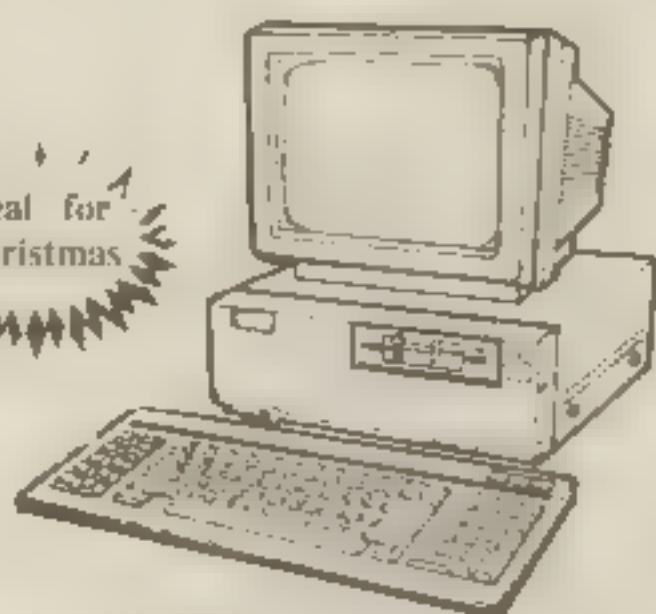


# UK HOME COMPUTERS

## PC/XT FOR UNDER £300

8088 Processor @ 8 MHz, Serial & Parallel Port, 8087 Socket.  
1/2 Mb On-Board RAM (Expandable)  
1X360k 5.25" FDD (Space for second)  
Mono/Colour Graphics Card  
2 Conventional Expansion Slots  
Space for Internal Hard Disk Drive  
MS-DOS 3.3 & GW-BASIC 3.2  
102 Key Keyboard made by EPSON  
12" Mono Monitor (New/Ex-Display)

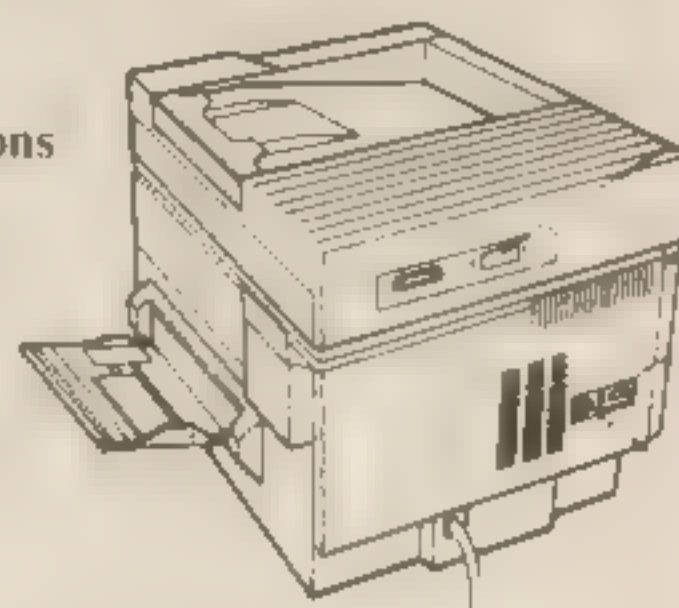
Ideal for  
Christmas



**£299.95p** inc. VAT & Carriage

## CITIZEN LASER PRINTER

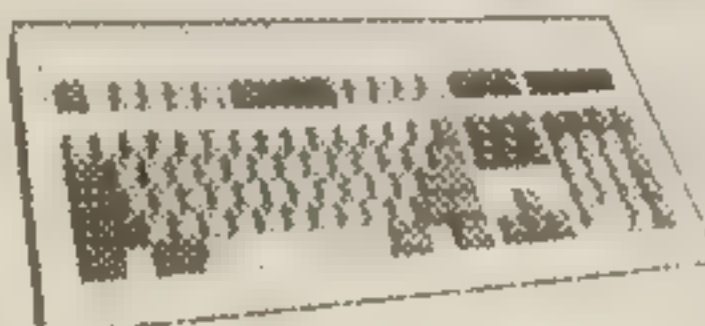
10 Pages per Minute  
1/2 Mb On-Board Memory  
Epson FX/ Proprinter & Diablo Emulations  
Parallel & Serial Interface  
300X300 dots per inch  
Landscape & Portrait Printing  
Toner Cartridges from £18.00p  
12 Month On-Site Warranty  
Model:- Overture 110 +



**£804.95p** inc. VAT & Carriage

## PC XT/AT KEYBOARDS

102-key key-board made by EPSON. Full UK Spec. with 5 pin connector. Adjustable



feet allow an elevated typing position. Self-sensing between XT or AT operation. Normally retailing at over £100.00p

**£39.95p**

Postage & Packing £4.05p

## "WINDOWS"

Microsoft's WINDOWS 286, Ver 2.1. Full manuals, 5.25" disks. Brand New & unregistered. Currently selling for approximately £55.00p plus VAT.

**£29.95p** plus £3.05p Postage

WINDOWS 386 Ver. 2.1

**£49.95p** plus £3.05p Postage

## "FIRST FRAMEWORK"

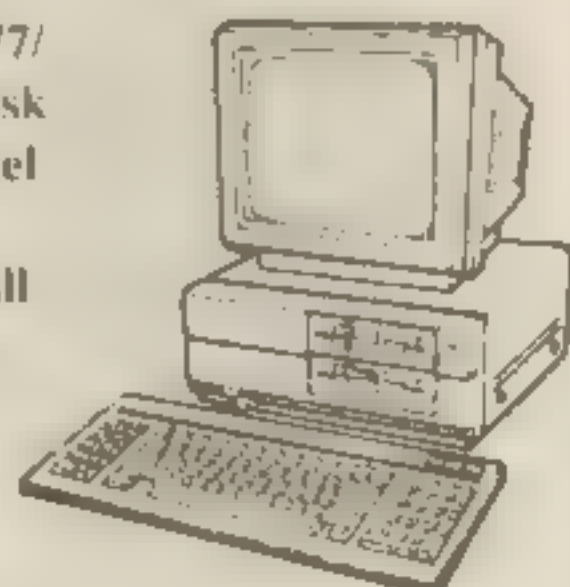
Made by ASHTON-TATE. A Complete integrated package for the Amstrad PC 1512 or PC Compatibles. The package consists of a word-processor, database, spreadsheet, & graphics programs. System requirements are 2 5.25" disk drives & a minimum of 360k RAM. MS-DOS 2.0 or higher. This package is all that you would expect from a company like ASHTON-TATE.

**£24.95p**

inc. VAT & Postage

## SAMSUNG PC/XT's

Model SPC 3000. 512k RAM (Expandable), Full-Size Keyboard, MS-DOS 3.2 & GW-BASIC, 4.77/8 MHz Clock Speed, Battery Back-Up, 5.25" Disk Drives, Hercules Display Card, RS232 & Parallel Ports, 8087 Co-Processor Socket, 90 Watt switched Power Supply, 4 Expansion Slots. Small Foot-Print. FREE Ex-Display Mono Monitor.

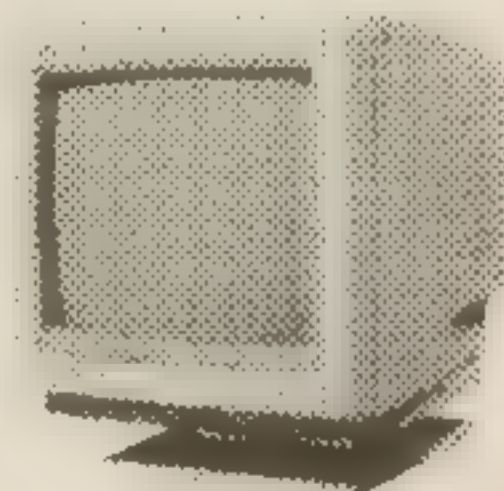


Single Disk Drive (512k) £419.95p  
Double Disk Drive(512k) £449.95p  
Single Disk Drive, 20 Mb Hard Disk Drive (640k RAM) £589.95p

inc. VAT & Carriage

## EX-DISPLAY MONITORS

Made by SAMSUNG. Condition as new. Tested prior to despatch. These monitors have generally had less than 10 hours use.



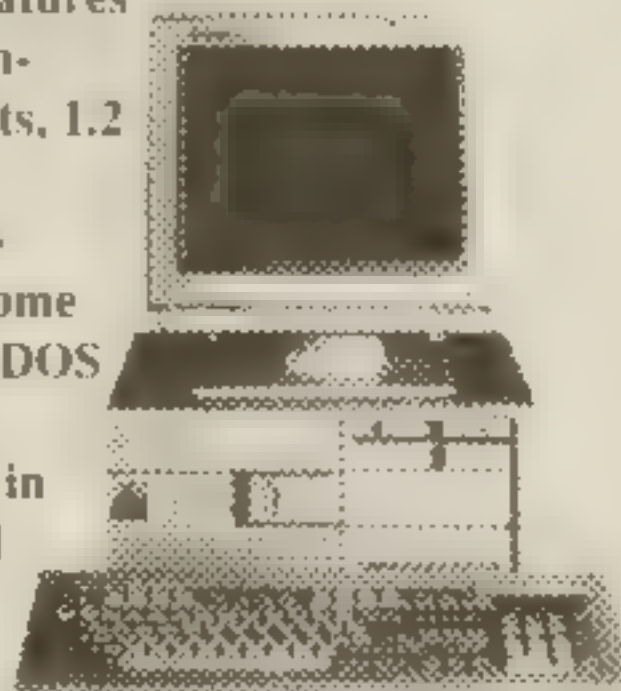
14" EGA £149.95p  
12" TTL Mono £49.95p  
12" VGA Black/White £69.95p

The above prices include VAT, but please add £10.00p per monitor for overnight carriage.

Tilt & Swivel Base and Data cable included

## PC/AT 286-OFFER 1

Made by SAMSUNG. Model MFC 6000/L. Usual selling price around £800.00p plus VAT. Features include 80286 processor @ 10MHz, 1Mb On-Board RAM (Expandable), 6 Expansion Slots, 1.2 Mb 5.25" High Density Floppy Disk Drive, (Room for 2 additional drives), 102 key keyboard, battery back-up, Hercules/Monochrome graphics Card, Serial & Parallel Ports, MS-DOS 3.2 & GW-BASIC. Ideal computer for the enthusiast who wants to add to their system in their own time. This item is very limited and cannot be repeated.

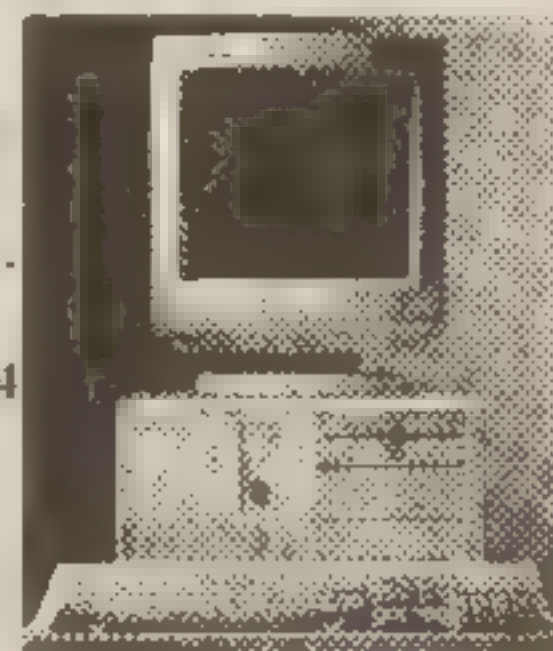


**£499.95p**

This price includes VAT, but please add carriage £10.00p. (Note:- This offer doesn't include a monitor.)

## PC/AT 286-OFFER 2

Made by SAMSUNG. Model SPC 6512, currently selling everywhere at £1150.00p plus VAT. Features include 80286 processor @ 12MHz, 1Mb On-Board RAM (Expandable), Twin High Density Floppy Disk Drives, (1X5.25" & 1X3.5"), 102 key UK Keyboard, Maths co-processor socket, 3X16 bit expansion slots, 2X8 bit expansion slots, Hard disk controller, Battery Back-Up, Optima/1024 VGA Graphics Card, MS-DOS 3.3, GW-BASIC, & Ex-Display 12" Samsung VGA Black/White Monitor. This machine is very powerful & well-specified. Again, limited stock so order early.



**£699.95p**

inc. VAT & Carriage



VISA/ACCESS orders welcome. Prices subject to change without notice. All transactions are subject to our standard conditions of Sale, available upon request. Personal callers welcome by appointment. All prices include VAT. All goods Brand New unless expressly stated otherwise

VISA

## UK HOME COMPUTERS

82 CHURCHWARD AVENUE,  
SWINDON, WILTS. SN2 1NH.  
0793 695034



# WHOLE

# WIRED

# WORLD

News from around the  
planet on page 32

# SHOPPING EXPRESS

THE VALUE-PACKED GUIDE TO YOUR MACHINE AND MORE

## CONTENTS

AMIGA.....	18
The ultimate word processor	
ARCHIMEDES.....	19
See the light with ray tracing	
CPC.....	20
Sim City reaches the CPC	
C64.....	22
Making a Special investigation	
PC.....	24
Does bigger mean better?	
Spectrum.....	25
Clip art lives up your documents	
ST.....	26
Smarter than the average desktop	
Macintosh.....	27
The books you can't afford to be without	
Whole Wired World.....	32
Steve Gold at large	
Centrefold.....	36
Go ■ Centrefold, go directly to Centrefold, do not pass Go...	
Circuit City.....	51
Some guidelines when upgrading	
Express On-line.....	54
The weekly bulletin board and user group guide	
The PD Column.....	57
The best in free software	
Programming.....	64
All your programming problems will soon be solved!	

# FREE! Reader Ads Order Form

PLEASE TICK THE CATEGORY YOU WANT YOUR AD TO GO IN:

- |  |  |  |                                   |
|--|--|--|-----------------------------------|
| <input type="checkbox"/> HELP OFFERED  | <input type="checkbox"/> GOODS WANTED  | <input type="checkbox"/> BUGS DISCOVERED | <input type="checkbox"/> EVENTS   |
| <input type="checkbox"/> SERVICES      | <input type="checkbox"/> VIRUS WARNING | <input type="checkbox"/> FOR SALE        | <input type="checkbox"/> PERSONAL |
| <input type="checkbox"/> ANNOUNCEMENTS | <input type="checkbox"/> MINI-TIPS     |  |                                   |

NAME \_\_\_\_\_ TEL: \_\_\_\_\_

ADDRESS \_\_\_\_\_

WRITE YOUR FREE AD HERE USING ONE SPACE PER LETTER

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Send your reader ads to:

SHOPPING EXPRESS READER ADS,  
30 MONMOUTH STREET, BATH BA1 2BW

## Terms and conditions

- Sorry, NO trade ads. All reader ads must be from private individuals
- We cannot vouch for the quality of goods and/or services offered in this section. All ads are accepted in good faith.
- We reserve the right to amend or refuse reader ads at our discretion
- No pirated software may be sold through these columns. Any reader being offered non-originals should contact us
- We cannot guarantee that reader ads will appear in particular issues of Express
- The following declaration should be signed:

My advertisement conforms to the terms above and is legal, decent, honest and truthful

Signed \_\_\_\_\_





## DATAPLEX COMPUTERS LTD.

129 Bath Road, 19 High Street  
Slough, Swindon,  
Berkshire, Wiltshire  
SL1 3UW

Tel: 0753 35557 Tel: 0793 488448

SHOWROOM  
open:  
Mon - Fri  
9.30 - 5.30  
Saturday  
9.30 - 4.30  
MAILORDER  
Consumables  
£1.50  
Hardware  
£8.00  
Prices  
excluding VAT

### AMIGA A500 HARDWARE

Amiga A500 Batman Pack  
+ free box of disks .....£317  
Amiga A500 Flight of Fantasy +  
box of disks .....£317  
Amiga A500 Screen Gems  
Packs + free disks .....£317

### SPECIAL OFFER

Amiga A500 1Mb Pack -Choose  
any Amiga A500 from above and  
we will give you 512K RAM +  
clock, mouse mat at only...£355  
Amiga Class of 90's.....£439

### ATARI COMPUTERS

Atari 520STFM discovery pack  
includes 4 games.....£240  
Atari 520 STE Turbo Pack includes  
basic STOS and 7 games.....£310  
Atari 1040 STE extra pack includes  
ST Words, ST Calc, ST Basic, ST  
Graphics, Hyper-Paint, STOS, 1st  
Basic, Print Game.....£399

### AMIGA/ATARI DRIVES

1 Meg 3.5" internal.....£49  
1 Meg 3.5" external.....£60  
1 Meg 5.25" external.....£90

### ACCESSORIES

512K Ram + clock .....£45  
Joystick.....£10  
10 Blank disks in library box .....£6  
Mouse Mat.....£3  
Naksha Mouse.....£32

### MONITORS

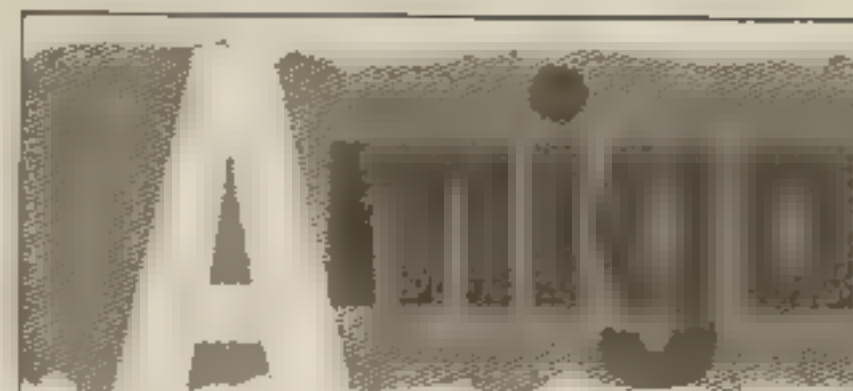
Philips CM8833 - Colour Monitor  
+ leads only .....£189  
SM 1224 (Atari) .....£205  
SM 124 (Atari) .....£85

### PRINTERS

Star LC10 Mono .....£129  
Star LC200 Colour (9 pin).....£180  
Star LC24 200 (24 pin) .....£219  
Star LC24 200 Colour .....£259  
Panasonic KXP1124+ lead....£199  
Panasonic KXP1624.....£329  
Citizen 120D + .....£120  
Citizen 124D .....£189  
Citizen Swift 24 + Colour  
Upgrade.....£265  
Citizen Swift 9 + Colour  
Upgrade.....£185  
Epson LX400 .....£526  
Epson LQ400 (24 pin) .....£199  
Epson LQ 500.....£269

### RIBBONS

PLEASE CALL FOR PRICES



### SOAPY STORY

When you work home, as I do,  
lunchtime means only one thing - work  
stops for my daily dose of *Home &  
Away* and *Neighbours*. Anyway, to cut  
a long story short, how many of you  
have noticed that Commodore  
Australia is now listed in the credits of  
*Neighbours*? What form of help  
Commodore are providing is unclear,  
but one thing's for sure - I haven't yet  
seen a single Amiga in the program.

Who knows, perhaps now that  
Commodore is associated with the  
popular Australian soap, we'll start to  
see Des Clarke working out his  
accounts on an Amiga 3000, or even  
Jane typing letters on an Commodore  
C286-LT portable!

### NEWSFLASH GOES HOME

Martyn Brown has announced that  
*Newsflash*, the Amiga's premier disk  
magazine, will now be handled directly  
by Newsflash UK. Previously,  
*Newsflash* was being distributed by  
several major PD libraries, but Martyn  
has decided to take on the task of  
promoting and selling *Newsflash*  
himself.

If you've never seen *Newsflash*,  
then you just don't know what you're  
missing. It's packed with useful  
programs (most of which are exclusive  
to *Newsflash*), gossip, rumour and a  
fair old helping of humour. For more,  
give *Newsflash* a call on 0924 265593.  
Tell 'em *Express* sent you.

### PIPE DREAM

Finding a PD game that looks  
amazingly like a commercial release is  
quite a common occurrence these  
days. The latest game to get the PD  
treatment is Empire's classic  
*PipeMania* which has just inspired a  
PD imitator in the shape of *PipeLine*.  
*PipeLine* features the same frantic  
gameplay that made Empire's release  
such a classic, but for the usual PD  
price.

The game is available from  
George Thomson Services on 077082  
212 (ask for Fish disk 358).

### THE PERFECT WORD PROCESSOR?

Amiga *Protext 5* is finally here, and  
what a brilliant program it is too!  
Thanks to those nice people at Amn,  
I've been using *Protext 5* to produce all  
my copy for the last couple of weeks,  
and I can say without hesitation that  
I'm very impressed. I've used just  
about every word processor ever to be  
released on the Amiga, therefore I feel  
qualified enough to say that *Protext* is  
without doubt the best there is. OK, it  
lacks many of the more cosmetic

features of programs such as *Pen Pal*  
and *ProWrite*, but it more than makes  
up for these in terms of raw word  
processing power. After all, if you're a  
professional writer, all you want to do is  
get on with the task of writing - those  
fancy multi-coloured gadgets and  
requesters serve only to slow down  
your work rate.

The new version of *Protext*  
includes many enhancements over  
version 4. Here's a quick run-down of  
what it has to offer:

- Improved User Interface - Intuition  
support has now been enhanced  
considerably, making *Protext* faster  
and much smoother in operation. Many  
operations such as 'Search & Replace'  
now have their own requesters.  
Loading and saving operations can  
used either the Arp file requester  
(unofficially recognised as the Amiga  
standard) or *Protext 5*'s own custom  
requester (which isn't half bad either).  
Blocks can be selected by dragging the  
mouse to highlight an area of text. You  
can also change the standard text font  
to any Amiga bitmap font.

- Enhanced Printing - Printing has been  
speeded up considerably. Also, *Protext*  
supports multiple fonts of different  
sizes on the same line, proportional  
formatting during editing, side margins  
etc.

- Multiple Files - You can now edit up to  
36 files in memory at once. Although  
no more than two can be viewed  
simultaneously, you can flick through  
them quickly and easily.

- Different Languages - You name it,  
*Protext* supports it. Among the 27  
supported are Albanian, French,  
German, Italian, Dutch, German,  
English, (I should hope so too!), Welsh  
and even Serbo-Croatian.

- Index And Contents Generation - Just  
mark words or phrases as you write  
them, and *Protext* will automatically  
create Indexes and Contents lists.

- Spelling Checker - Features  
completely new 120,000 word Collins  
dictionary. For foreign users, there are  
even German and Swedish dictionaries  
included (with more to come for other  
languages). Be prepared for 1992 with  
*Protext 5*!

I must admit that there's still one  
thing that really bugs me about *Protext*  
- and that's the lack of support for  
Amiga custom screens. Perhaps I'm  
being too picky, but I would have liked  
to have been able to run *Protext* in a  
screen totally independent of  
Workbench. This way, I could switch  
back to an uncluttered Workbench  
screen and access the CLI/format a  
disk/run other programs etc without  
having to resize the *Protext* window

## WESTONING LTD

NEW LOW, LOW PRICES!

3 1/2 DS/DD  
30p

5 1/4 DS/DD ..... 20p  
5 1/4 DS/HD ..... 38p

3 1/2 DS/HD 70p

3 1/2 BOXES  
40 cap £3.00  
80 cap £3.75  
150 cap £10.75

5 1/4 BOXES  
50 cap £3.00  
100 cap £3.75

★ NO QUIBBLE GUARANTEE - FOR LIFE!

ADD £4 P&P OR £9 NEXT DAY DELIVERY

### AMIGAS

Screen Gems .....£355  
First Steps .....£490  
Class 90s .....£490  
External Drive .....£57  
1/2 meg upgrade with Clock .....£35  
1/2 meg upgrade without clock.....£29  
1 1/2 meg upgrade.....£99

VISA

Access

### ATARI

520 Discovery.....£260  
520 Power .....£350  
1040 Extra .....£420  
Portfolio .....£210

ALL PRICES INCLUDING V.A.T

## WESTONING LTD

12 SANDERSON ROAD, WESTONING, BEDFORD MK45 5TY  
TEL: 0525 718668 0836 775060



first. OK, memory is already tight on a 1Mb Amiga, but why not at least give users the option? This shouldn't require too much effort on Arnor's part. Anyway, gripes aside, *Protext* is still my number-one choice for a word processor. It's fast, it's powerful, it's featured-packed and it's damned good value for money - what more could you possibly want from a word processor?

For more, give Arnor a call on 0733 368909

### SECRETS OF DTV REVEALED

Desktop video is another one of those applications that contains more than its fair share of jargon. Key framing? Composite encoding? Genlocking? - they're all gibberish to most of us! If you feel mystified, then help is at hand with G2 Systems' new instruction video entitled 'Recording Computer Graphics onto Video'.

The video unveils the mysteries of such things as genlocks, coding and

colour keying, plus a whole lot more besides.

The video costs £10 and is available from G2 on 0252 737151.

### POSTSCRIPT

Is there something lacking in your DTP work? Dot matrix printers are fine for plain text and letters, but not for serious DTP. Compuvision now offers Amiga users a postscript printing service that will print out their work on a high quality laser printer. Just send your *Professional Page* or *PageStream* files to Compuvision on a floppy disk and they will print them out for you. It costs £1.25 per page (although you must order at least 5 pages).

Compuvision also offers a high-resolution scanning service. Send them your artwork and Compuvision will scan it and send you the resulting file in IFF format. Give Compuvision a call on 0642 850759.

Jason Holborn

## Archimedes

### LIGHT AND SHADE

In the red corner we have Ace Computing's *ArcLight*, another in the *Euclid* series of 3D modelling programs. Scenes created with *Euclid* can now be passed through *ArcLight* to add that extra touch of ray-traced realism to them. The program is fully RISCOS compatible and happily multi-tasks with all other applications, the output image being displayed in a window as it is traced. You can even include a Mogul animation sequence, and all the frames will be calculated and compressed automatically. A huge number of parameters can be changed (some even during a trace) that control such things as cut-off levels for rays, recursion for reflections and the qualities (shine, refractive index, etc.) of the materials used as well as setting the image size and camera position.

I thought that the layout of the parameter menu was a little cluttered - perhaps some of the more esoteric features could have been farmed off into a sub-menu. None the less, some impressive if 'bland' scenes can be produced. Texture mapping is promised in a future release.

Ace is on 0223 322559.

Meanwhile, in the blue corner, the PD raytracer *RayShade*. This is a port of a Unix raytracer and is thus totally non multi-tasking, non RISCOS and non desktop; but then who really cares? It produced some absolutely stunning results. In a similar way to QRT, *RayShade* takes its input from a source file that describes the objects

that make up the scenes. This is made up from the usual planes, spheres and boxes but includes additional information for texture mapping. Typing "RayShade -h" gives a brief summary of some of parameters that can be set, these include being able to trace stereo pairs.

I can't reveal much more as I have no actual instructions! A number of example files are supplied from which you could make up your own pictures, but I must say some of the commands look a bit daunting - 14 parameters for a 'surface' command. I think I'll just look at the demo pictures.

### A FLIGHT OF FANCY?

In computer games, just as in films and books, the appearance of a sequel is often surrounded by huge quantities of advertising and publicity. Unfortunately the product does not always live up to its hype. Often this is due to the nature of the sequel but sometimes there's simply a rather fundamental problem with the original idea. In my opinion *Interdictor* is a case in point. I never really liked the game to start with, dull scenery and not much gameplay, certainly not much of a feeling of realism. Now the much heralded *Interdictor II* has arrived and quite honestly I feel not much has changed. O.K., there's more ground detail, but only a few rather spindly trees, a few orange lines and a set of roads, the whole game is still set on a very plain plane. How about a few realistic-looking hills and valleys?

## MORE AMAZING OFFERS FROM BCS LTD

**3 1/2" DS/DD**

50 Disks + 80 Box .....£25  
100 Disks + 80 Box .....£41  
150 Disks + 80 Box .....£58  
200 Disks .....£72  
400 Disks .....£132  
500 Disks .....£Call  
Price includes VAT & P&P

Inc. Labels

Amiga 1.5 Meg Upgrade £100

3 1/2" POSISO STACKABLE BOXES £15.00

3 1/2" 40 cap boxes £4.00  
280 cap boxes £4.30

5 1/4 DS/DD 23p  
5 1/4 DS/HD 47p

SONY BRANDED 75p

100 3 1/2 DS/DD £37 inc. P&P & Vat

SONY BULK 43p

3 1/2 DS/HD 80p

\* ALL DISKS CERTIFIED 100% ERROR FREE \*

ALL PRICES INCLUDE VAT. ADD £3 P&P. ADD £9 NEXT DAY

AMIGAS	Mouse Mat.....£2.50	ATARIS
SCREEN GEMS.....£355	Cleaning Kit.....£2	DISCOVERY.....£259
BATPACK.....£355	Ram Pack.....£35	Turbo Pack.....£350
FLIGHT OF FANTASY.....£355	+ clock.....£40	EXTERNAL DRIVE + PSU.....£67
CLASS OF 90S.....£493	Cumana drive.....£66	Zip Stick.....£11
FIRST STEPS.....£510	3.5" ext drive.....£57	

★ QUICKJOY JET FIGHTER JOYSTICK £12 ★

CALL OR SEND CHEQUES TO B.C.S LTD  
49 DITCHLING ROAD, BRIGHTON BN1 6T  
Tel: 0273 506269 (mobile phone 0831 279084) 7 days, 24 hours.

### HIGH QUALITY DISKETTES

PIN NUMBERED QUALITY DISKETTES 100% CERTIFIED AND GUARANTEED 100% ERROR FREE. MANUFACTURED AND QUALITY ASSURED BY AN INTERNATIONAL BRAND NAME

**3 1/2" DS 720K**

**3 1/2" DD**

**37p**

**3 1/2" COLOURED DISKS 40P**  
Red, white, yellow, green, orange, grey

**5 1/4" DS 360 K**

**5 1/4" DD**

**21p**

**DS/HD 1.44MB**

**42p**

**85p EA**

**3 1/2"**

PLASTIC LIBRARY CASES		EA	STORAGE BOXES	
3 1/2		89p	3 1/2 40 cap ...£4.20	3 1/2 80 cap .. £4.60
5 1/4			5 1/4 50 cap ...£4.40	5 1/4 100 cap £4.90

**EURODATA**  
12A QUAKERS YARD  
ADAM AND EVE ST  
MARKET  
HARBOROUGH  
LEIC LE16 7LT  
TEL: 0858 433992  
FAX: 0858 432549

**LIFETIME GUARANTEE**  
ALL PRICES INCLUDE DISKETTE LABELS ENVELOPES AND VAT  
ORDER NOW WITH POSTAL ORDER OR CHEQUE MADE PAYABLE TO EURODATA, OR TELEPHONE YOUR ORDER USING MASTERCARD & VISA. SUBJECT TO AVAILABILITY  
ADD £3.20 P&P

GO ON BE TEMPTED

ACCESS VISA

LOWEST PRICES FOR HIGHEST QUALITY



# mph WORLD OF PD DEMOS

MPH is one of the largest PD Libraries in the country. Each month, over 1000 people receive our catalogue disk which contains details of all our PD disks AND also our own mini disk magazine.

## WE ARE DIFFERENT!!

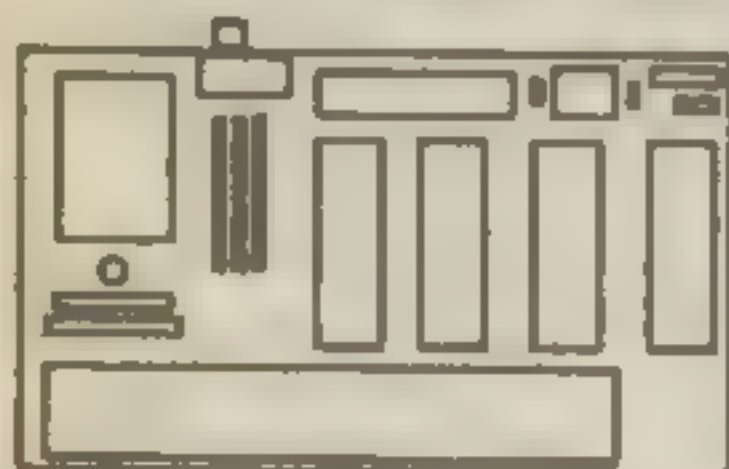
Our disks don't cost the earth. In fact we are one of the cheapest libraries in the country with our prices starting from only 90p.

**Catalogue disk/magazine only £1.00**

**mph** 10 CHANDLERS CT  
EATON  
PD NORWICH 0603  
NORFOLK 503382

## COMPUTER UPGRADING BARGAINS

### AMIGA A500



- ★ Increase RAM from 1/2Meg to full 1 Meg
- ★ Small board design
- ★ Real-time clock with battery back-up
- ★ Off/on switch

**ONLY £37.50**  
without clock £33.00

### ATARI STE



#### Easy to install RAM EXPANSION

- ★ Upgrade 520STE to 1Meg (2x256 Simms) .....£39
- ★ Upgrade 520/1040 to 2Meg (2x1Meg Simms).....£110
- ★ Upgrade 520/1040 to 4Meg (4x1Meg Simms) .....£230

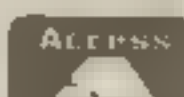
### AMSTRAD

- ★ Model 1512 RAM Upgrade to 640K .....£21
  - ★ For super speed calculations the INTEL 8087-2 (8MHz) Co-Processor ..£87
  - ★ For higher performance, replace your 8086 cpu with the NEC v.30 8 Mhz..£15
- Kits supplied with instructions

**PRICES INCLUDE VAT AND CARRIAGE**



**SWIFT-TECH**



Open up to 7.00pm Mon-Sat

**Tel: 0480 811805**

37a High Street, Offord Darcy, Cambridgeshire, PE18 9RF

Your mission is at least now slightly interesting, but then again not really very realistic - one plane against the whole of the enemy? What ever happened to good ol' team work! I can see that *Interdictor II* will appeal to some and it is certainly a huge improvement over its predecessor, but it is hardly the best flight simulator ever written; perhaps the forthcoming competition from 4th Dimension's *Chock's Away* will put things in more perspective. All I want is a game on par with *Flight Simulator II* or *Battle Command* on 'other' computers.

#### JIGSAW JUNIOR

I must apologise for the delay in reporting the existence of *Jiglet* from 4Mation. In essence it is literally a cut-down version ■ the original *Jigsaw* program, as only 4, 6, 9 or 12 pieces can be used. (*Jigsaw* can cope with up to 120 pieces). In *Jiglet* you can control the shape of the pieces, from simple rectangles to full irregular shapes, with the usual jigsaw bobbles and dents. Visually *Jiglet* is identical to *Jigsaw*, except for the desktop front end which has been considerably improved from *Jigsaw*; buttons now control piece shape, rotation and number instead of the rather arbitrary 'level number'. *Jiglet* gets my approval - I just want a *Jigsaw* version of it!

4Mation is on 0271 45566

#### THE GOLF CRISIS

After the recent appearance of *Superior Golf*, you may be wondering if the market could really cope with yet another golf game. Well, surprising as it may seem, the answer is yes, the real question is how did we ever put up with all the other versions!

*MicroDrive*, from Cambridge International Software, is being plugged as a 'golf simulator', but don't be put off, all it means is that it is miles more realistic and fun to play. The main area of improvement is that the ground is no longer flat, indeed some of the holes supplied on the disc are positively Himalayan, with hills, valleys and even split-level greens. Two courses are supplied, but no designer as yet - can you imagine what that would be like! Perhaps the front end ■

a little tacky, but the quality of game-play more than makes up for that. If you like golf, try *MicroDrive*, I think you'll like it too.

Also from CIS at the moment you can get *Memory Magic*, a rather elementary memory game more suited for children. In the near future, watch out for a version of the board game, *Shanghai*, and a *Rhapsody*-compatible, MIDI drum sequencer.

CIS is on 071-833 4023.

#### GLOBAL WARMING

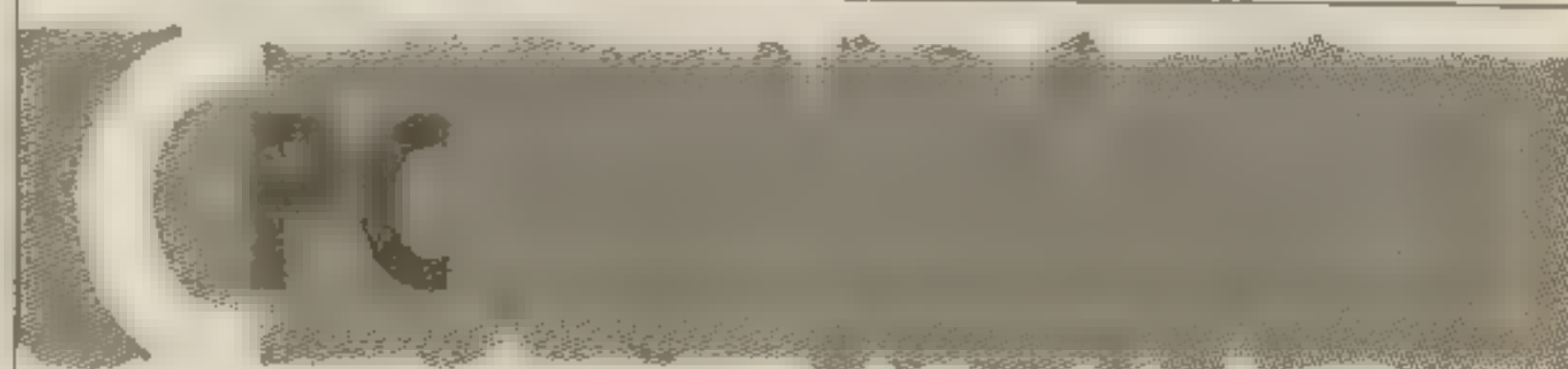
■ seems that Eclipse's *WorldScape* has been attracting more attention than the authors originally expected. Schools all over the country are eagerly awaiting its arrival. Why the sudden excitement?

Well, Eclipse has been collaborating with both Friends of the Earth and the World Wildlife Fund to turn the product into more of a simulation than a game. It is also likely that a follow up will be produced, aimed more specifically at the education market and further increasing the realism. The current version should be out in early November for the original price ■ £19.95. What with the recent trend of printing manuals on recycled paper, it's nice to see an ecologically sound piece of software appearing!

Eclipse's less 'green' game, *Blowpipe*, (involving lots of shooting and killing), is finally nearing completion still. Again, an early November release is planned. I've seen a demo version and played it and on the whole I feel it has the edge over *Nevyrion*. The music ■ brill, the sprites good and the end-of-level guardians excellent. Admittedly it's still only a scrolling shoot-'em-up, but it's a goody. Watch out for the block-eating puzzle game *The Crunch* coming soon, I've only seen a demo (written in BASIC!) but it seems to have the right appeal, for current trends

Eclipse is also now marketing a joystick interface that plugs into the printer port. Two Atari joysticks can be plugged in and made to emulate keypresses by means of a small relocatable module.

Ken Coumarlin



#### FIRST AMSTRADS SPOTTED!

Reports are starting to come in that the new Amstrads have been sighted in public. Whoopee! It looks as if Amstrad has timed the mass shipping of the machines ■ perfection - straight after

their public unveiling at the Computer Entertainment Show and plenty of shopping weeks before Christmas. And my spies tell me that the ads are starting to appear in the national press. Of course, it'll ■ a little ironic if the



new Plus machines score a huge hit with the first-time buyers, since the basic hardware is now six years old – but the all-new styling and Amstrad's hard marketing push could well pull it off.

More likely, though, is that the Plus models will sell most heavily on the back of the console – either as an upgrade machine for console owners in a few months/years time, or as machines which play the new console games but also allow serious use too.

Many CPC buffs are a bit cheesed off that Amstrad didn't beef up the basic specs for the relaunch – we are talking six-year-old technology, after all. But it could just be that the 'old' CPC fulfilled its function perfectly. How much complexity do you need in a beginner's machine?

Of course, if you wanted to be really cynical you could speculate that if Amstrad made the CPC any better it would damage the sales of the company's bottom-end PCs

## PLUS MINUSES?

One nasty piece of news I certainly didn't want to hear is that it looks as if the new 464 Plus will not accept a disk drive. This is a great shame, as it means the new Amstrads will not have the same 'interchangeability' as before. If you want a disk drive machine then you'd better buy one right at the start – as there's no way you will be able to upgrade later on.

Mind you, it doesn't necessarily work both ways. I'm hearing whisperings that a simple hardware mod will allow 6128 Plus owners to load software from tape. The trouble is, it will automatically invalidate the guarantee. I'll bring you more details on that when I have them.

## SIM CITY

*Sim City* has been around on the 16-bit machines for ages, and it's such a complex-sounding notion that I never really expected it to materialise on the 8-bit micros. And anyway, it seems like a bit of a 'snobby' 16-bit style game. I mean, building your own city? Bit snooty, eh?

Apart from anything else, you wouldn't really expect it to be that exciting, would you. Ask your average bunch of gamers what they'd like to spend their time doing, and the construction of municipal office blocks wouldn't really rank too highly, would it? And there are probably more exciting things to do than plan suburban housing developments...

Think again. It must be something to do with a deep, subconscious megalomaniacal urge in all of us, but *Sim City* is extremely addictive.

Your simulated city is built up gradually out of individual building blocks. Your principal job, as mayor, is to allocate building plots to different enterprises. The people who inhabit

your landscape must do the rest.

For example, since you start off with a bare, unpopulated landscape you must first of all find somewhere for the people to live. By paying out \$100 you can set aside a residential area which people can build houses on. This won't be too popular, though, without any electricity supply, so you'll have to build a power station (expensive). But even though people now have somewhere to live and a power supply, they'll still need something to do. So you'll have to buy an industrial plot, and then a commercial plot for shops, banks and the like and then more houses to supply a work force and then more industry... and so on.



• Hmm – your metropolis is doing quite well. Pity about that earthquake.

As your settlement grows you'll need to think about less essential items – but things important nonetheless in any bustling city. You'll need police and fire departments before long, and sooner or later a sports stadium. And a port and airport will come pretty handy later on when you want to expand your city still further.

All this development costs money, of course, and this is where the real skill comes in. As mayor you have complete control over the city's purse strings. You set the taxes and you must balance revenue against expenditure, expansion against consolidation.

The citizens themselves can get angry. For example, no-one likes living next to an industrial site, and your unseen population is no exception. Earmark a site for some potentially money-making industry and you may well lose more than you stood to gain by people moving out in their thousands. The same thing happens if you build too many roads in residential areas, or encourage so much industry that your city is immersed in smog.

All that's tough enough to handle, but if you want to test your mayoral skills to the limit, try coping with an earthquake, floods or even monster attack – all options on the Disaster menu which, thankfully, you can switch on or off at will.

From a rather odd initial idea, Infogrames has developed a highly addictive and challenging game. Its real secret is the sense of achievement you get from encouraging countless thousands of people to move into your settlement. Either way, for the price of £9.95 on tape, £14.95 on disk, you're getting a game that'll last you a long, long time. ➤

## POST EXPRESS

All prices include VAT & Delivery  
All computers are genuine UK specifications  
All computers include a FREE HOLIDAY  
Proprietor: Mark A Cameron.

Please make cheques/P.O.'s etc payable to POST EXPRESS  
POST EXPRESS  
HILLCREST HOUSE, SUITE 1  
49A VICARAGE ROAD  
LONDON E18 5EP  
TEL: 081 518 7494 9am-4pm

★ FREE 2 YEAR WARRANTY WITH ALL COMPUTERS BELOW! ★

### AMIGA 500 SCREEN GEMS PACK ★

Amiga 500	£399.99	<b>£364</b>	OUR PRICE
Days of Thunder	£24.95		
Shadow of the Beast	£24.95		
Back To The Future II	£24.95		
Knight Breed	£24.95		
Deluxe Paint II	£49.95		
AND MORE!			
TOTAL RRP OVER £600.00			

### AMIGA 500 BATMAN PACK ★

Amiga 500	£399.99	<b>£364</b>	OUR PRICE
Deluxe Paint II	£49.95		
Interceptor	£24.95		
The New Zealand Story	£24.95		
Batman The Movie	£24.95		
AND MORE!			
TOTAL RRP £524.00			

### AMIGA 500 FLIGHT OF FANTASY ★

Amiga 500	£399.99	<b>£364</b>	OUR PRICE
Deluxe Paint II	£49.95		
F29 Retaliator	£24.95		
Rainbow Islands	£24.95		
Robot Monsters	£24.95		
AND MORE!			
TOTAL RRP: £519.79			

### AMIGA 500 CLASS OF THE 90'S PACK ★

Amiga 500	£399.99	<b>£529</b>	OUR PRICE		
Educational s/w	£660.00				
Upon registration each purchaser will receive a file containing:					
Over 200 pages of advice, guidance and worksheets relating to the National Curriculum and lots more!					
TOTAL RRP £1054.48					

### ATARI STFM DISCOVERY PACK ★

ATARI STFM	£299.99	<b>£264</b>	OUR PRICE
Bomb Jack	£24.95		
Carnet Command	£24.95		
Outrun	£24.95		
Space Harrier	£24.95		
ST Tour	£49.95		
Discover the ST	£14.95		
Control ACC	£9.95		
Emulator ACC	£9.95		
First Basic	£24.95		
Neochrome	£29.95		
STDS The Games	£29.95		
Creator	£29.95		
AND TONS MORE!			
TOTAL RRP: £569.48			

### ATARI 520 STE SUPER POWER PACK ★

Atari STE	£399.99	<b>£364</b>	OUR PRICE		
ENTERTAINMENT/PRODUCTIVITY S/W					
Afterburner, Buggy Boy, Double Dragon, Gauntlet II, Outrun, Pacmania, Predator, R Type, Space Harrier, Super Hang-On, Xenon, Black Lamp, Bomb Jack, Bombzai, Eliminator, Mousetrail, Nebulus, Star Goose, Star Ray, First Basic, Music Maker, Personal Organizer					
AND PLENTY MORE!					
TOTAL RRP: £1009.94					

### ATARI 1040 STE SUPER POWER PACK ★

Atari 1040 STE	£499.99	<b>£444</b>	OUR PRICE		
Arkanoïd II, Ice Palace, Black Lamp, Buggy Boy, Chopper X, Eddie Edwards SW, Ikari Warriors, Marble Madness, Quadrant, Ranarama, Return to Genesis, Road Wars, Seconds Out, Starquake, Olympics, Test Drive, Thrust, Thunder Cats, Wirball, Xenon, Zynaps, Personal Organizer and much more!					
TOTAL RRP £953.97					

### ATARI 1040 STE HOME/BUSINESS PACK ★

Atari 1040 STE	£499.99	<b>£449</b>	OUR PRICE		
Wordprocessor	£49.95				
Database	£49.95				
Spreadsheet	£59.95				
Business Graphics	£39.95				
First Basic	£49.99				
S.T.A.C.	£39.95				
Hyper Paint	£24.99				
Prince	£24.95				
AND PLENTY MORE!					
TOTAL RRP: £839.71					

Please phone or write to us for your free catalogue. There are some terrific bargains in it!

**AMIGA 2000 UP TO £500 OFF**

**ATARI MEGA ST UP TO £300 OFF**

**STACY UP TO £200 OFF**

TEL: 081-518 7494

## The Adventurers Club Ltd.

64c Menelik Road, London NW2 3RH. Telephone: 071 794 1261



### ADVENTURER, JOIN OUR CLUB!

ADVENTURES \* STRATEGY GAMES \* SIMULATIONS \* ROLE-PLAYING GAMES

As a Member, you will receive our **REFERENCE BOOK OF ADVENTURE**. Our regular Amendment and Update Packs will enable you to build up the most comprehensive adventure-related reference book ever published, as a cross-referenced and constantly updated volume.

The **REFERENCE BOOK OF ADVENTURE** is divided into 26 sections:

- |                         |                  |
|-------------------------|------------------|
| * NEWS                  | * REVIEWS        |
| * SOFTOGRAPHY           | * COLUMNISTS     |
| * BASIC ADVENTURING     | * ADVENTURES     |
| * MULTI-USER ADVENTURES | * STRATEGY GAMES |
| * SIMULATIONS           | * MINI-SOLUTIONS |
| * SERIALIZED SOLUTIONS  | * PLAYING-GUIDES |
| * STARTER-GUIDES        | * HINTS AND TIPS |
| * UTILITIES             | * BUGS           |

- PLUS MANY OTHER SECTIONS!

#### BENEFITS INCLUDE:

- Access to our **HELP-LINES** (mail and telephone - 7 days a week)
- Wide **SOFTWARE CATALOGUE** (up to 25% discount - all formats covered)
- Free swap/sell facilities, cash prizes, competitions, special offers and MUCH MORE!

For more information, please write or phone us for a **FREE** leaflet/application-form, or complete the coupon to take advantage of our **SPECIAL INTRODUCTORY** offer worth £2.00 off your subscription.

Please enrol me as a Member of the Adventurers Club for 6/12\* months.

NAME:

ADDRESS:

POSTAL CODE:

BINDER and INDEX

STARTER PACK

6-MONTH U.K. SUBSCRIPTION

12-MONTH U.K. SUBSCRIPTION

I enclose a cheque for £21.95/£31.95\* payable to the Adventurers Club.

Please debit my ACCESS/VISA \* card with £21.95/£31.95 \*.

(Card number:

(Cardholder signature:

Overseas rates available on request.

\* Please delete as appropriate.

Expiry: / /



# COMPUTER AUCTION

**SATURDAY 17TH NOVEMBER AT  
BOWLERS, LONGBRIDGE ROAD,  
TRAFFORD PARK, MANCHESTER.  
SALE STARTS 11.00AM  
VIEWING AND TESTING  
FROM 8.30AM**

About 1000 lots of equipment incl:  
IBM, COMPAQ, TOSHIBA, APRICOT,  
AMSTRAD, EPSON, AND OTHER  
IBM COMPATIBLES. HOME  
COMPUTERS, APPLE EQUIPMENT,  
SOFTWARE, PRINTERS, HARD  
DISKS, MODEMS, MONITORS  
CONSUMABLES ETC.

FOR YOUR CATALOGUE RING  
**COMPUTER CONNECTIONS ON 0254 81 3316**  
PS Ring should you have immediate requirements for VGA Cards,  
IBM PS 2's, COMPAQ, IBM, POSTSCRIPT, LASER ETC.

**What you see is what you  
pay - no hidden charges!**

All prices *include* postage, VAT and labels

**Top Quality 3.5" DSDD each**

1-49 **46p** 50-99 **44p**

100-149 **43p** 150+ **42p**

40 disks & 40 capacity box **£22.00**

80 disks & 80 capacity box **£41.00**

## Disk Boxes

3.5" (80 capacity) 1 **£7.40** 2 **£12.78**

Other sizes available - telephone for prices

All disks are purchased direct from a major  
manufacturer and are 100% guaranteed.



**MARKETACE LTD**



20 Stapledon Road, Orton Southgate,  
Peterborough PE2 0TD

Tel: (0733) 371799 (24 hours)

Fax: (0733) 370722

Callers welcome Mon-Fri 9-5. Sat. 10-1.

## RICK DANGEROUS POKE

No, I haven't had any cheats in for  
*Rick Dangerous II* yet. This one's for  
the original, and itself excellent,  
adventuring epic. Got the tape version?  
Got a Multiface? Then this one's for  
you:

## ADDRESSPOKE EFFECT

88C3	A7	inf lives
9F35	A7	inf bullets
9F90	A7	inf dynamite

Rod Lawton

## TWO DOWN

There's been a mixed response here to  
the first ■ the cartridge games for the  
C64GS now that two of them have  
arrived. Both *Special Criminal  
Investigation (Chase HQII)* and *Plotting*  
hark from the Manchester based  
Ocean, proving that they're not  
completely hung-up on licences. You  
can see the power at work in *SCI* right  
from the moment it's switched on. The  
dash display across the bottom of the  
screen uses all the colours it can  
possibly squeeze in and the  
instruments are keylined in black for  
clarity. On top of that, the main action  
(seen, in third person perspective, i.e.  
from behind the vehicle you're  
controlling) zooms along at an  
incredible glitch-free rate.

The problem with it is in the  
gameplay. It's fine at first. Every  
section uses different background  
colours from the last and the controls  
respond enough to keep you leaning  
into the screen. But there's nothing ■  
the way of variety. Every level is  
nothing more than a more difficult  
version of the last.



• Not a lot of painstaking forensic  
inquiry goes on in this one - but  
lots of brains get spilled

With *Plotting*, it's a different story  
again. *Plotting* is an arcade puzzle of  
adequate originality and excellent  
playability. Disassemble the screens  
made up of blocks with a bouncing ball  
fired from one of the walls surrounding  
the blocks. If it all sounds a little like  
*Breakout* then please accept the  
excuse that there isn't space here to  
elaborate further and that this is a  
game likely to captivate compulsive  
puzzle players (especially veterans of

*Tetris*). Again, the graphics are  
impressive and would otherwise  
consign *Plotting* to the multi-load  
genre.

Given that Ocean has developed  
other carts of the likes of *Navy SEALs*  
and *Batman*, it seems strange that their  
first two releases should be completely  
vertical. Perhaps it wasn't planned that  
way. The word is that *SEALS* is ready  
but the release is being held back in  
the light of the film's scheduled  
appearance date of February '91. As  
for *Batman*, after its success in its first  
disk/cassette based incarnation, it may  
be planning something special for it.

## OH, BUCK

The latest in the steadily growing list of  
collaborations between SSI and TSR  
comes 64wards from US Gold under  
the name of *Buck Rogers: Countdown  
To Doomsday*.

The game format will be familiar to  
anyone who's tried his hand at one of  
the *Dragonlance* games. Nested  
menus, animated graphics windows,  
special combat screens and tome-like  
background documentation combine  
effectively to drop the adventure right  
into your lap from the first move. But  
never mind - this is one RPG that  
races along from one well structured  
scenario to the next.

## RAM

Earth has been laid to waste by the  
over-exploited plot of over-exploitation  
and now a mega-corporation from  
Mars, called RAM, wants to put the  
place out of its misery by 'sterilising' it,  
making way for their evil genetic  
engineering program ■ the process.  
Buck Rogers, revived, showered, and  
with his first change of clothes for five  
hundred years, has joined an all-inner  
planets anti-RAM organisation called  
Neo. It ■ a party of neophyte Neos  
whom you must first generate and then  
play.

Not surprisingly, the whole thing is  
fully compatible with TSR's recently  
released (and very successful) RPG,  
ensuring that characters can be ported  
into and out of the computer as  
required by propeller heads. What  
more could you want?

Sean Masterson



# PC

## AWKWARD MEMORIES

Few people must use even a fraction of the programs on their hard disk - but they still sit there, using up memory. When a lumbering great beast of an application suddenly gains 40 new features (in one case a program actually boasted of 240 new features) and grows by a megabyte, I tend to react in horror rather than glee.

We're beginning to see what are euphemistically called 'starter products' appearing. These offer the core of the application - the ten per cent of the features required by 90 per cent of the users. The best thing about them is that they come in at a fraction of the price of their heavyweight brethren. I'm currently looking at *LetterPerfect* - half the size and half the price of *WordPerfect 5.1*, easier to use and file compatible - it looks like a winner. I now look forward to reviewing *Half-ard Graphics*, *Lotus 1-2* and *dBASed IV*.

On the subject of better things coming in smaller packages it looks as though I'm going to have to bite the bullet on hard disk storage - There just isn't enough of it to go around. One of the major reason for this is the previously mentioned point about the size of applications - nothing seems to install to less than 3Mb these days - I think it must be Marketing Rule No. 5, 'Customers won't take the software seriously if they can install it without having to remove something else first'.

I hit this problem with Digital Research's *Artline* and Corel's *Corel Draw*. Each of these installs to more than 6Mb - without all the clip art libraries. That's 1.5Mb for every £100 of recommended retail price. This ratio seems Marketing Rule No. 6. Who on Earth has 12Mb free? I normally run with anything from 1Mb to just a few kilobytes spare for emergencies. Doesn't everyone? Having delete more than a third of my hard disk brought tears of anguish to my eyes - it'll all go back eventually but in the meantime I feel deprived.

The answer is file compression. Being realistic I don't actually use most of the programs on my hard disk all that often. If I roll the odd directory up into one big file and zap it with a compression routine life will be simpler. I already have the shareware *PKZIP*, though I don't use it. Perhaps I should. I'll try it out and report back on the results soon. There are a few purely commercial programs about that will do the same job. I'd like to hear from anyone who's already using a compression program to save hard disk space - write in and tell me about.

Steve Patient

The favourite upgrade for owners of floppy only machines is to a hard disk - a fact that demonstrates just how much good sense PC owners have. A hard disk increases both the ease of use of a PC and its usefulness. Most modern applications (as distinct from utilities) are crippled without one. But what about those who already have one - what are they lusting after; well, apart from that? The answer is usually a better display. Just about everyone without VGA wants it.

A VGA adaptor card comes in at around the £100 mark, but a good colour monitor is crippling (as distinct from an inadequate colour monitor, which won't cripple you but will make your eyes ache). Before you decide the whole exercise is beyond your financial clout take a look at mono VGA monitors. Get your local dealer to show you one running Windows 3 - or whatever. You will be surprised at just how clean and sharp the picture is. A run of the mill colour VGA monitor with barely adequate dot pitch and a screen so curved it looks like a beachball in a box costs about £250. A really sharp, flat, mono VGA monitor comes in at under £100.

## SCREEN EMULATIONS

The vexed question of just which PC screen types can emulate which other screen types keeps coming up. Let's sort it out. Of the commons graphic adaptors (which really means the electronics that drive the screen) three are out of IBM and one isn't. IBM introduced CGA (Colour Graphics Adapter), EGA (Enhanced Colour Adapter) and VGA (Virtual Graphics Array - and you thought it would be another adapter). The non IBM graphics adapter is Hercules.

Hercules introduced its card as a replacement for the text only MDA (Monochrome Display Adapter) card. The Hercules card did graphics as well and thus proved very popular - it still is. This is because it provided higher resolution than the others at a fraction of the price - provided you didn't want colour.

Now for emulations. Hercules can be made to emulate CGA - but without the colour - and rather slowly. The best known utility to accomplish this is *CGA2*, available from most shareware catalogues. EGA will emulate CGA (but not Hercules). VGA will emulate CGA and EGA and has top resolution as high as Hercules anyway. No special software is required - do these other emulations - the ability is built in. Now you know.

## SHOPPING EXPRESS 23



PD Soft, (NCE)  
1 Bryant Avenue,  
Southend-on-sea,  
Essex SS1 2YD.



**Credit Card Hotlines**  
(0702) 612259/466933

- |  |  |   |
|--|--|---|
| 26 - Hot Girls XXX                       | 535 - Alcatraz Tv Movie @3             | 659 - Final Assault II                    |
| 28 - Knight Demo*                        | 542 - Puggs in Space                   | 660 - End of the Century 1999 II          |
| 31 - Fashionizing Mega demo              | 543 - Mahoney & Haktus II              | 661 - Flash Productions Digital Concert 5 |
| 38 - Soden Tech Tech Demo                | 544 - Final Ecstasy XXX                | 662 - Crionics mega demo disk             |
| 71 - Sculpt 3D Animations                | 545 - Escort May Edition 1989 XXX      | 664 - Budbrain Mega Demo disk @2          |
| 80 - Newtek Demo Disk @2*                | 547 - The Addams Family *              | 666 - Brainstorm mega demo disk           |
| 111 - Walker Demo*                       | 548 - The Neighbours Slide Show        | 667 - Cronics 'Neverwhere' Mega Demo      |
| 112 - Luxo Teenager Animation            | 549 - Dragons Mega demo                | 668 - Rebels Candyland Volume 19.0        |
| 114 - Walker Demo II*                    | 550 - Dragons Long Sample Disk         | 669 - Hogar the Horrible Preview          |
| 125 - Videoscape Animation               | 551 - 2010 The Year we made contact    | 671 - Digital Concert 6                   |
| 168 - NASA Pictures Disk                 | 554 - Turrican Playable preview        | 672 - Scoopex Demo Collection disk No 10  |
| 185 - Frog Animation                     | 555 - The Run Animation Disk           | 673 - Battle Command Playable Preview     |
| 186 - Star Trek Animation @2*            | 556 - Catacombs Playable preview       | 674 - Epic Animation*                     |
| 221 - Playboy Slideshow XXX              | 558 - Divine Visions Pictures @2*      | 678 - Good Morning Vietnam Romix          |
| 232 - ANTI-ST Disk                       | 560 - Badge Killer demo Contest        | 679 - More From the BK Demo               |
| 242 - Plasma force Acid Mega Demo        | Winners Collection                     | Competition. See Disk 560*                |
| 252 - Eddie Murphy Delirious II XXX @    | 561 - Zeus Animation* Bonus            | 681 - Night Breed Picture disk            |
| 266 - Mars Cops Preview                  | 562 - Van Gells Demo*                  | 682 - Big Als The Girls of Sport XXX      |
| 267 - Utopia XXX                         | 564 - Digimovie Number One XXX         | 683 - Bash one! Dirty Picture disk XXX    |
| 268 - Kylie Minogue Demo @2              | 565 - Digiview Slide show              | 684 - Ecstasy Pleasure Pack No 30         |
| 272 - Freddy Kruger Demo                 | 567 - Subbutco Preview                 | 686 - Sound of Silents                    |
| 318 - Joe of Scoopex Picture Show        | 575 - TFA Music sample disk            | 687 - Innes Pond Preview                  |
| 343 - Forgotten Realms by Fraxxon        | 580 - PC Boyz Music Disk               | 688 - Back to the future III Playable     |
| 349 - R.A.F. Mega Demo @2                | 581 - Martin Galnay Music Show         | Preview                                   |
| 354 - Space Ace Preview                  | 582 - Wonderland Arcade Game           | 689 - Technotronic Remix                  |
| 377 - Sound Tracker @6                   | 583 - Scare crows story                | 690 - Popeye meets the Beach Boys         |
| 380 - The Jugler Demo                    | 586 - Light Cycle* @2                  | 692 - Wrath of the Demon Preview          |
| 381 - Cool Cougar Demo                   | 588 - Flash Mega demo @2               | 693 - Sam Fox Slideshow XXX               |
| 411 - Newtek Demo Real III* @2           | 590 - Punisher Playable Preview        | 695 - Dragon Lord Preview                 |
| 414 - Dragons Lair II Demo               | 591 - Blood Sports II                  | 696 - Murder Preview                      |
| 454 - PD-SOFT Collection No.1*           | 592 - Miami Vice Theme                 | 697 - Cantine Preview                     |
| 458 - PD-SOFT Collection No.2            | 593 - Crockett's Theme                 | 698 - Super Off Road Racer Preview        |
| 460 - Kefrens Mega Demo VIII @2          | 594 - Fantasy Art Slide Show           | 699 - 3D International Soccer Preview     |
| 467 - Dragons Music Inferno              | 596 - Vision Bom To be cool            | 700 - Horror Zombie Preview               |
| 468 - Get Up Sample                      | 597 - Erotica Pictures disk No 1 XXX   | 701 - Anarchy Collection                  |
| 469 - Digital Concert 3                  | 599 - Abel Mega demo Disk              | 702 - Charles Dance Music collection      |
| 470 - Vision Music Masters               | 600 - Pan demo III                     | 703 - Have a Laugh pictures XXX           |
| 471 - AMOS Preview                       | 601 - Bacteria demo                    | 704 - Awesome Preview                     |
| 472 - Crypto Burners Music Party 1990    | 602 - Get to the safe House            | 705 - Wolfpack Preview                    |
| 473 - Dexion Music Disk                  | 603 - Treach Mega Demo @3              | 706 - Exoret music collection             |
| 474 - Rebels Mega Demo Disk              | 606 - Scoopex Collection disk No 70    | 707 - Preview Pack collection             |
| 475 - Danish Known How Flash productions | 607 - Psychodelia Demo By Razor 1911   | 709 - Diggy Piggy @2                      |
| 476 - The Pom King XXX                   | 608 - Deadly Pursuits No 42            | 711 - Ghost and Goblins music             |
| 477 - Fractal Flight Demo Version        | 609 - Powerlords Power Music II*       | 712 - Beach Volby Demo by Paradox         |
| 2.1 As reviewed AF Issue 12 *B           | 611 - Vangelis Demo*                   | 713 - Pseudo cop Game                     |
| 482 - Trade Mega Demo                    | 612 - Monty Python's Nudge Nudge @2    | 714 - Raiders of the lost ark animation   |
| 495 - TDB Sound Disk                     | 614 - Debbie Gibson Electric Youth @2  | 715 - Evil Dead II Sample Disk @2         |
| 496 - Maestro Jams Volume One            | 616 - Ipeceve Music                    | 717 - Rebels Megablast                    |
| 497 - Ivanhoe Preview                    | 618 - Powerlords Power Music No 1      | 718 - Midnight Sun                        |
| 498 - Frantic Freddy Full Gameb          | 620 - Laurel and Hardy show Real @2    | 720 - Vaxine playable preview             |
| 499 - Fraxxon Horror Show                | 623 - Scoopex collection disk No 71    | 721 - Wings of death playable preview     |
| 500 - Mental Hangover By Scoopex         | 624 - Too Much 3D Animation disk       | 722 - Anarchy Demo collection             |
| 501 - Playboy Slideshow* @2              | 625 - Maniacs of Noise music pack II   | 725 - Ghost pool animation                |
| 504 - Vocal Attack II, Get It Up         | 626 - Prime 90 Music @2                | 726 - Partners crime demos no 27          |
| 505 - Music Maestro VI                   | 628 - Maniacs of Noise music pack II   | 730 - Scoopex 84 collection               |
| 508 - It Mega Demo Disk                  | 629 - Bionix II, The Challenge         | 731 - Silkworm 4 playable preview         |
| 510 - Darkness Mega Demo Disk            | 630 - Onyx Music disk                  | 732 - Billy The Kid Preview               |
| 511 - Brainstorm Mega Demo @2            | 632 - Playboy August Issue* @2         | 733 - PMC Fractal animation               |
| 513 - Mean Break Machine Music           | 635 - 100 Original C64 Titles          | 734 - Clothes peg animation               |
| 517 - Home & Away Pictures               | 638 - Donna Edmonson Animation         |   |
| 519 - Animation Collection Disk          | 640 - Porky Pig Animation disk*        |   |
| 520 - Predators Mega Demo @2             | 641 - Disorder Mega Demo Disk          |   |
| 523 - Gymnast Animation                  | 642 - Maniacs of Noise Music pack No 1 |   |
| 524 - Gas Guzzler Preview                | 643 - Revelation Playable Preview      |   |
| 525 - Escape From Singes Castle Preview  | 644 - Blonde Beauties XXX              |   |
| 526 - Twisted Dreams VIII (The           | 646 - Patrol boat animation            |   |
| Revenge) XXX                             | 648 - Jailbreak Slideshow              |   |
| 527 - Mad Porn Animation XXX             | 649 - Wildlife Playable Preview        |   |
| 528 - Securitate Music Disk              | 650 - Rosanne Arquette Slideshow*      |   |
| 529 - Cryptoburners Mega Demo II         | 652 - Gold of the Aztecs Preview       |   |
| 530 - Time Circle Music Disk             | 653 - Bathine Beauties @2              |   |
| 531 - Revolution Music Disk              | 656 - Days of Thunder Animation        |   |
| 532 - Highlander Sword Animation         | 657 - Plotting Playable Preview        |   |
| 533 - Trackball Animation                | 658 - The Flame Arrows Vocal Attack    |   |

@n = n represents number of disks required. All others are single disks.  
\* = 1Mb Required  
\*B = Bonus programs for 1Mb but 512K will still work.

Send A Large SAE for a Free extensive List of all our disks. We stock All Fred Fish, TBAG. All Orders 1 Hour Turnaround.

**Simply The Hottest Amiga PD Library!**

## FLETCHER FONTS

**PACK 1 to 3:** 6 Disk Pack full of colour fonts (palette of 16 Colours) complete with instructions to load them in DPAINT compatible art packages.

**PACK A or B:** 6 Disk Pack full of Black & White Fonts for use as above.

£12.00 Per Pack. Exclusive To PD SOFT

## VARIOUS

V38 - C.O.S. Solutions: solutions to all Sierra games  
V39 - StarTracker; 8 Channel SoundTracker!  
V47 - JamTracker; Music, Editor, Player, Ripper  
V48 - TV Graphics; @4  
V52 - Video Graphics; @4  
V56 - DiskMaster V3.0; Styling like AmigaDos 2.0  
V57 - Icons & Icon Clip Art; @2  
V59 - Fletcher Fonts Colour Fonts Example Disk  
V60 - Fletcher Fonts B/W Fonts Example Disk  
V61 - VIRUS Version 5

## LICENCEWARE GAMES £3.00 each

**SPACE BLOB** - Cross between Bomb Jack & Manic Miner  
**MR DIG (1Mb)** - The famous Atari Dig Dug  
**Q-BOID** - The Coin-up Game Vulcan. Tetris Variant.

## CATALOGUE DISK

Tired of boring catalogue disks? Get the unique, easy to use PD SOFT Database Catalogue Disks. They contain details of over 1000 disks available directly from stock from us. A multitude of options including Search & print. 2 Disks Only £1.50. Free Updates.

## FRED FISH PAPER

Ever wanted a complete description of all the Fred Fish disks on Paper? Well, the entire list is now ONLY available from PD SOFT. Approx. 60 Pages revealing everything about every program in this range as described by Fred Fish. Only £1.50

## PRICES

1-5	Disks	£2.50
6-10	Disks	£2.25
11-20	Disks	£2.00
21+	Disks	£1.75

With exception of Licenceware and Selected Packs.  
XXX please state you are over 18.



# YOUR OWN PD/SHAREWARE LIBRARY

## FOR ONLY £29.95

### OVER 750 OF THE BEST PD/SHAREWARE PROGRAMS/FILES FOR IBM AND COMPATIBLES

Using the very latest archiving techniques, together with an easy extraction facility, we have compressed what would normally be supplied on 40 or 45 disks on to a 12 disk set.

All the most popular programs are there, including Galaxy, PC-File, As Easy, PC Write, Power-Menu etc.

Graphics, Accounts, Games, Printer Utils, File Utils, Disk Utils, Tutorials, Programming Languages, you name it and it's there

A program at your finger tips for all occasions.

Become a power user.

No extra charge for 3.5" Disks

Please add £2.00 Post & Packing. Cheques or postal orders.

**P C LINDLEY (SOFTWARE),**

101 FRANCIS STREET, CHADDESSEN, DERBY DE2 6DE

TELEPHONE: (0332) 43721

## BLITTERCHIPS

P.O. BOX 64 KEIGHLEY BD21 4NB

TEL/FAX (0535) 667469

10am-7pm Mon-Friday 9am - 4pm Sat

## PRICE BLITZ

**LOOK** ON AMIGA PUBLIC DOMAIN  
1-4 DISKS ONLY £1.15 EACH  
BUY 5 DISKS OR MORE  
ONLY 95 PENCE EACH  
ORDER TEN OR MORE  
CHOOSE ANOTHER **FREE**

**SPECIAL OFFER TO ALL NEW CUSTOMERS**

SEND A STAMPED ADDRESSED ENVELOPE

(33 pence) FOR OUR LATEST LISTS OF OVER 500 P.D. DISKS

AND YOU CAN CHOOSE YOUR FIRST DISK FROM US

**ABSOLUTELY FREE** FROM THE LIST OF DISKS BELOW.

Elvira (game demo), Amos (game creator demo), Puggs in Space demo, Digital Concert 4 (Music Disk), Dexon Mega Demo, Fillet The Fish (animation), Space Ace (game demo), Colossus (Text Adventure)

**SEND FOR YOUR FREE LIST AND DISK  
TODAY**

Blitterchips "Cliffe House", Primrose Street,  
Keighley, West Yorkshire BD21 4NN

OFFER APPLIES TO U.K ONLY

MAIL ORDER ONLY

SORRY AMIGA PD ONLY

Access



VISA

# Spectrum

## MASTERING WORDS

I know lots of you out there use PCG's three-piece suite of desktop publishing software, because amongst the usual scrawled biro and old typewriter with faint letter P created missives, I keep getting sent beautifully designed letters with different fonts carefully positioned all over the place and arty looking letterheads across the top. Well you can incorporate clip art in your Wordmaster DTPed documents, just like those trendy 16-bit owners. In case you're a bit thick, clip art is a collection of pictures covering every conceivable area of interest that you can paste into DTPed pages. And, surprisingly, there's bags of the stuff around for the Spectrum.

Those ever reliable Spectrum types at Garner Designs (57 Lovers Walk, Dunstable, Beds. LU5 4BG.) have a total of 600 piccies on six disks for Plus-3 users and four tapes for 48K/128K owners. What's more, there's apparently loads more to come. Each collection costs £6.95, whether on disk or tape and pictures on offer range from an eyeball to a ladder. Another regular source of excellent quality clip art is Outlet (Chezron Software, 605 Loughborough Rd, Birstall, Leicester LE4 4NJ.), the on-screen mag for the Speccy that's received warehouses of plugs from this column in the past. Each issue has a screen full of pictures that can be incorporated into PCG's DTP software as well as art utilities.

Teachers Pet Software, which specialises in educational programs for the Speccy has also got four batches of clip art available. They're clumped into four collections - animals, cars, people and places and clip, which is a selection of screens that don't fit anywhere else. Each collection is available on tape, Microdrive or +D/Disciple disk for £4.50, includes around 40 examples of clip art and you can get hold of them from 175 Craigton Rd, Aberdeen AB1 7UA.

I've also just seen a load of clip art converted from the ST by Danish Speccy fan Leif Mortenson. In between editing his brill fanzine - *Sinclair Freak'eren* (unfortunately not available to English spec chums) he's converted 228 screen loads of the stuff to the Speccy with loads more to come. Leif is offering all this prime clip art to PCG themselves as well as Outlet and the Plus-3 Users Group. He was kind enough to send me printouts of all his clip art and it's the best I've seen for the Spectrum, so let's hope we'll get a chance to snazz up our Wordmaster designed pages with it soon.

## FREE PD

There's now a public domain library library. Ashley Price (11 Spences Court, 58 Spences Lane, Lewes, East Sussex.) has just set up a service which will apparently provide people with a full list of PD libraries for the Spectrum for the price of an SAE. I'm not sure if there are enough around to make this viable but if your a PD head librarian and don't mind the "small" fee for registration contact Ashley at the above address.

Incidentally Ashley also told me in a right-on, non-sexist fashion that he, 'admires the Miktor, s/he certainly knows his/her Spectrum games.' Something we all agree with, I'm sure.

## EGO TRIP

Fancy yourself as a computer journo? Between you me, it's a bit of a cushy number. I ask because a fanzine called *Spec News* has got loads of situations vacant that they want to fill with the cream of Spectrum specialists undoubtedly reading this.

They're looking for people to write about adventures, music and games, as well as pen features for each issue of their tape mag. I would tell you what the latest issue was like only it refused to load (send me another copy!) but if my memory serves me correctly, *Spec News* is an enthusiastic mag pitched along the same sort of jape-filled lines as *Your Sinclair*.

Would-be contributors should get in touch with Chris Kelly at Imprint Publications, 192 North Home Rd, Cirencester, Glos GL7 1DX. Don't expect to get any financial reward apart from the ego-inflating thrill of seeing your name in pixels.

## MINUS MIKTOR

M A Harris, alias the much revered Miktor, hasn't sent in any pokes this week. He offered the following cheat for *Midnight Resistance* instead.

"Redefine keys and when asked OK Y/N? quickly (And I mean QUICKLY) type I AM AN OCEAN GAMES TESTER. If you're not quick enough the keys will redefine so try again. You should now end up with a cheat menu. If you select 'weapon' you need ammo as well.

To select a weapon play the game and then press [FIRE], [DOWN], [BACKPACK] and tap [SPACE].

Old MA also gave me a bit of information that might come in handy for anyone contemplating using his excellent Plus-3/Plus-2A utility, *Ghost*, which has appeared in this column and *Your Sinclair*.



"You may have had a few complaints from Plus-3 owners saying that they couldn't load anything. Well, depending on the quality/speed of your tape, you may need to POKE 1512,X. X is a number between five and ten, it starts at seven. Although I say 5-10 some tape recorders are so bad you may need higher numbers. Any number up to about 20 might be worth trying (0 is the slowest and you won't get

anywhere with it.) This shouldn't pose a problem if the game uses it's own loader."

Another hearty helping of thanks to MAIL

Got any hints, cheats, pokes, news or anything else Speccy-related you think I should know about? If so send 'em to *New Computer Express*, 30 Monmouth St, Bath BA1 2BW. Ta.

Robin Alway



## ST DESKTOP

Yeah, sure the ST's Desktop is OK. It's certainly better than the blank A-prompt that the majority of PC-contemptibles display, and it's certainly friendlier than expecting you to type in messages like, er, COPY \*.\* A: B: (cough, cough, displaying very rusty PC-contemptible knowledge here -- after all, it's years since I had to do without icons and a mouse, thank God).

And yet... And yet, it's hardly being disloyal to the ST to admit that Atari has let the desktop get a little long in the tooth without improving it sufficiently. Even my nice shiny 1040STE is still lacking in quite a few obvious areas. (The thing that really gets my goat is how, if you move an icon slightly within a folder, it assumes you want to transfer the file to the same place it was before.

Aaargghh!)

(No doubt Atari has a very good reason for this, though I'm hardly inspired by Steve Gold's report of the explanation offered for minor bugs in the latest version of TOS. Apparently there was a bit of a hurry to get it finished one afternoon and one or two wee bugs crept in. Very reassuring, I must say!)

I wrote a couple of weeks ago about the TT's terrifically user-friendly interface, and no doubt eventually many of its better points will "trickle down" to us mere ST owners. But that's still a long time away.

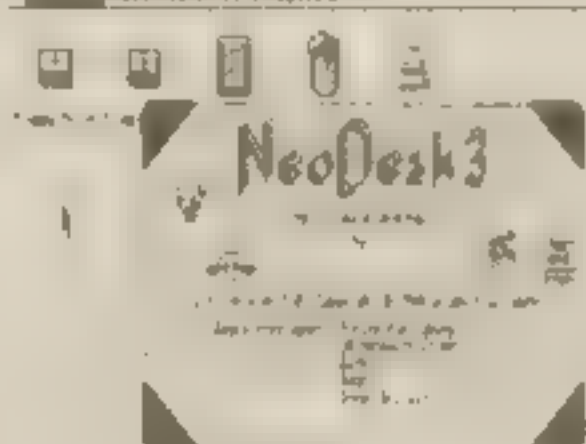
Thus it is with some considerable excitement that I tore open a package ordered from GST and containing, I rightly guessed, *NeoDesk 3*. Having spent a good few hours testing it out thoroughly (OK, OK, playing about with it) however, I must admit that quite frankly I'm...

Absolutely delighted. It's tremendous. It does all kinds of things that are a Godsend to anyone who uses their ST for anything more than playing games. You can, for instance, automate any series of desktop

operations such as opening windows, copying and deleting files, executing programs and assign them to any key on a keyboard.

You can replace commands with keyboard shortcuts for speedy operations. You can access, again with an assigned key for extra speed, programs, files and folders from the *NeoDesk* desktop. You can store files and folders temporarily on the clipboard while changing floppy disks or reorganising your hard disk, should you be lucky enough to own one.

NeoDesk 3 file menu help settings



• The ultimate desktop. And you'd better believe it.

You can write important notes, and even recover that vitally important file that you were sure was the older version, by dragging it back from the recoverable trashcan.

And, if you wish, you can also redesign and modify custom icons, specify colours and fill patterns; import *Degas* or *NeoChrome* pictures as backdrops; and carry out smart file and disk copying. In a word, brilliant.

There is, however, one thing worrying me. Either I'm doing something daft, or it's impossible to load the latest version of *Protext*, one of the ST's most popular word processors, from within *NeoDesk 3*. This is, I hope, a quirk associated with that program alone, though knowing the *Amiga* gang I doubt that they've been doing anything illegal or unusual.

Anyway, the two-disk *NeoDesk 3*, which includes an excellent 130-page manual is an absolutely wonderful creation and will cost just £39.95 from GST, which can be reached on the following telephone number: 0480 496789.

# AMAZING PRODUCTS

## Incredible Prices

For your Commodore Amiga

## Red Hot Amiga Software

Cross Dos.....	£24.95
Digiview Gold V4 .....	£99.00
Sculpt-Animate 4D.....	£229.00
Broadcast Titler 2 .....	£189.00
Pro Video Post.....	£189.00
Pro Write V3 .....	£89.00
Saxon Publisher .....	£219.00
Vista .....	£49.95
Distant Suns .....	£34.95

Large range of educational software in stock - Call for details

## A500 RAM Expansions

512K RAM Clock Card .....	£34.95
512K Card Without Clock .....	£29.95
1.5MB RAM Clock Card* .....	£89.95
1 MB ICD Expansion .....	£139.00
2MB ICD Expansion .....	£179.00
4MB ICD Expansion .....	£249.00

\* Requires the Amiga to be opened. Needs Kickstart v1.3 or above.

## Amiga Floppy Drives

880K External Drive .....	£65.00
880K Drive + 512K Clock Card .....	£95.00
A500 Internal Drive .....	£49.00
Dual External Drive .....	£110.00

## Amiga Peripherals

Philips CM8833 Monitor .....	£249.00
NEC Multisync 3D Monitor .....	£649.00
Star LC200 Colour Printer .....	£229.00
Star LC10 Mono Printer .....	£169.00
Tough Perspex Dust Cover .....	£9.00

WE SUPPLY ATARI ST AND COMMODORE AMIGA COMPUTERS AND PERIPHERALS AT BEST PRICES! PLEASE CALL!

All items on this ad. may be ordered by postal mail order or by telephone.

We accept Access and Visa.

Please make cheques and POs payable to Power Computing.

POWER COMPUTING

44a Stanley Street, Bedford, MK41 7RW

0234 273000

(5 lines)

Prices include VAT and delivery. Please add £7.50 for overnight courier delivery if required. We reserve the right to change prices and product lines without prior notice.



# PBT ELECTRONICS

*For details contact:*

**PBT  
ELECTRONICS  
LTD,**

**UNIT 17,  
PORT TALBOT  
WORKSHOP,  
ADDISSON ROAD,  
PORT TALBOT,  
WEST  
GLAMORGAN,  
SA12 6HZ**

**TELEPHONE  
0639 885008**

## GO FOR IT - ATONCE

If you are obliged to sit in front of the aforementioned despised PC-contemptible at work, you might want to carry on working when you get home. But don't go out and buy a second computer just for that reason. Instead, use your ST.

But, I hear you splutter, but. But nothing: use a PC emulator. Use ATonce, for instance, which has just had an upgrade to Version 3, which includes 'task switching' — in other words, you can run up to eight PC applications at once.

Normally ATonce would cost you £199. As part of this column's service, however, I'm about to tell you how someone will give you a tenner to take ATonce.

Blimey! Of course, there is a catch, of kinds. You need to be in the market for a hard drive, and prepared to go for a really good one. To be precise, you need to shell out £579 for the Vortex 40Mb Datajet, and you need to be buying from Full Circle Technologies, which can be called on 0622 677173.

## LOOK OUT FOR CHRISTMAS

Oh no, not that. Anything but the dreaded exmuss. Still, with Atari approaching its most important Xmas ever, the ST is once again well poised to make its way into thousands of new homes, for not only is it the wonderful machine you've come to know and love so well, it's also the "entry-level" (ie cheapest) 16-bit machine.

Everyone, except, apparently, Atari, knows that the STE fiasco, when the upgrade ST was discovered to be incapable of running a goodly proportion of older software, put a serious blight on last year's festivities. That situation has more or less sorted itself out, though the STE has not exactly been snowed under with new software taking advantage of its capabilities.

Now is the time for Atari to really push the ST as the great machine it is. With a little marketing flair, a big push and a lot of investment, this could yet be the Christmas we took back on as the time Atari turned the corner.

## YOU REALLY SEND ME

Haven't you ever wanted to send faxes via your ST? You haven't? Oh, well you'd better skip this story and go onto the next one.

Ladbroke Computing is selling, for £190, a widget that enables you to send faxes, though not receive them, using your ST. The modem is fully Hayes-compatible, has auto dial/answer and speeds up to 2400 baud.

Call Ladbroke Computing on 0772 203166.

## NEW CITIZEN PRINTER

Citizen has just launched the 124D, a new printer that offers 120 character per second in draft-mode and is claimed to be the lowest priced 24-pin on the market. Its recommended retail price is £320.

Call Citizen on 0895 72621 for details of your nearest stockist.

## NOTHING BUT GOOD NEWS

Three companies about whom I've had unsolicited letters commending their service in the past week or two: the ST Club (0602 410241) and Mike Goodman Public Domain Library (0782 335650) both offer an excellent public domain service, with extras.

And I'm glad to see that many people have followed my recommendation and bought the £39.95 TCB Tracker, a superb four channel synthesizer, drum machine and mixing studio from MPH (0603 503382).

I have two copies of this excellent software to give away to the author's of the best letters published in this column over the next month.

So whatever you feel like saying, whether you wish to recount some particularly excellent (or execrable) service; tell me your feelings on the recent Atari 'Whistle Stop Tour'; whether you wish to congratulate Atari for the excellent way it runs its business, or merely wish to expatiate on the aerodynamics of pork, write to Steve Carey's ST Column, *New Computer Express* 30 Monmouth St, Bath BA1 2BW.

Steve Carey

# acintosh

## MAC-LITERATE

To help new Mac users get over the preliminary barriers of almost complete lack of knowledge and experience there are various guides available. So below, I've detailed a couple of these that should help you to get to know your INITs from your CDEVs, etc.

## THE LITTLE MAC BOOK

This is a 100-page book written by American Robin Williams. Subtitled 'An Informal Guide', it's a perfect book for the complete Macintosh novice — starting from defining basic computer terms like 'K', 'Meg', 'RAM' etc. Chapters then introduce concepts like



folders, windows, applications, the desktop, desk accessories and so on.

The only quibble that I have with this book is its sometimes appalling style. It's written in an American 'accent', which sometimes becomes extremely grating. But if you can cope with prose like "If you have lost files, do read about Mr Find File on page 81. He'll go get them for you," and you've never used a Macintosh before, then this could well be the book for you. It costs £13.95 and should be available from most good bookshops. If you can't find it, give Headway Computer Products a ring, on 0252 333575. For the more retentive amongst you, the book's ISBN is 0 938151 21 5.

### THE MACINTOSH BIBLE

For more advanced readers *The Macintosh Bible* is an absolute must. The second edition of the book has over 700 pages of information, arranged into chapters starting with general principles, moving through fonts, printers and utilities and finishing up with tips on using commercial packages for things like word processing, graphics and page layout.

Information in the chapters is organised into stand-alone pieces consisting of two or three paragraphs, each group with its own icon - a burning match for a 'very hot tip', a hand with the thumb down for a 'very bad feature' and so on.

*The Macintosh Bible: Second Edition* is edited by Arthur Naiman, priced at £24.95, and available from bookshops or from Headway (phone number as above). The ISBN of this one, in case you're wondering, is 0 940235 01 3. The enlarged version is out in November.

### USEFUL UTILITIES

Here are a few free and ShareWare utilities which no Macintosh user should be without.

*Init cdev 3.0*. This is a utility which controls which INITs are loaded when you start up your Mac. If you plan to try out different INITs it's vital that you have a program like this. It's distributed, free, under the HappyWare system.

*SuperClock! 3.9*. is another freebie, this program puts a digital clock on the right-hand side of your menu-bar. The font that the clock is displayed in, the format of the time and date and whether to have it chime or not are all configurable via the control panel.

*Disinfectant 2.2*. Mentioned in my first column, it's since been upgraded to version 2.2. Every Mac user really should have some form of anti-virus protection. *Disinfectant* is totally free and is available from user groups, bulletin boards and normal public domain software sources.

*SCSIProbe 2.03*. Only really of use if you have a CD-ROM player or a

removable hard disk attached to your Macintosh via the SCSI port. The program scans the port and allows you to mount devices which are there but haven't appeared on the desktop. It appears as a control panel document and, once again, it's free.

For Mac PD software, try Translumen International. Its address is (wait for it) Saithaelwyd Ucha, Carmel, Holywell, Chwyd CH8 8NU. Tel 0352 710276. It has a wide range of PD and ShareWare stuff for the Mac, including the whole *Educorp* range. I'll be looking at other PD sources in future weeks.

### BARGAIN CITY

If you can't really afford a Classic, or you want a machine that's slightly faster but can't afford the LC, then don't despair. The arrival of new machines has meant that the second-hand value of older machines has plummeted. Around £700 has been topped off the price of an SE 2/40, for instance, which now goes for around £900. So for the same price as a Classic 2/40, you could pick up an SE - which is faster and as reliable. The guarantee may have expired, but for many people the savings will still outweigh the risks.

Keep an eye out for second-hand Mac Pluses. These should start to sell on the second-hand market for silly prices - with the base-level Classic costing £575, the owner of an unexpanded Plus can't expect to get more than about £200-£300. A bargain.

There are a few things that you should look out for. Firstly, examine the top of the case, where the front and back sections are joined. If it's damaged, it probably means that someone has taken the case off without using the special tool; ask yourself why they may have wanted to do that.

Next, look at the screen. Check to see if you can see a faint image - where the screen has been left on with a static image displayed for a long time. If the image is very faint, you may well be able to live with it - but check.

Ask to see the Mac initialise (format) a floppy disk. If it fails, beware: the disk heads may be out of alignment, or the drive may be damaged in some way, both of which could cost you a fortune to have repaired. Once the Mac has formatted a disk, ask to see it run a variety of software - if possible, take some of your own. If the heads are out of alignment, it won't be able to read disks formatted on another machine.

Remember to check all the obvious things with the owner: Has it ever needed repairs? Was it new when they bought it? How old is it? Etc.

Finally, before you buy, try to get some kind of guarantee that if it needs repairs within a couple of weeks of you purchasing it, you'll get a refund.

Ian Wrigley



# Your computer is the only teacher which YOU CONTROL!

Whatever your age, whatever your subject - let your computer help you learn.

Subjects include ...

French, German, Spanish, Italian, English History, Geography, Science, General Knowledge, Football, First Aid, Sport, England, Scotland, Natural History, Junior Spelling and Arithmetic

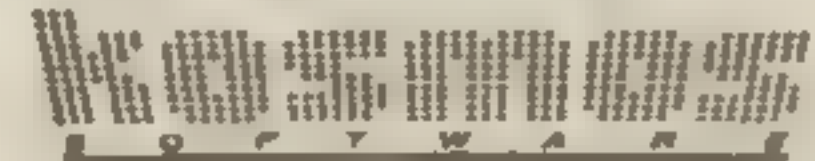
Available for most popular home & business computers



Kosmos are specialist producers of Educational Software designed to help you enjoy learning from your computer. Our programs even allow you to add your own lesson material.

Write or telephone for a FREE 20-page BROCHURE of our Educational & Leisure software. Please state your computer type.

Kosmos Software Ltd, FREEPOST (no stamp needed) DUNSTABLE, Beds. LU5 6BR Telephone 05255 3942 or 5406



## MADE IN THE U.S.A

"FORMAT ON A HIGH QUALITY PRODUCT AT THE BEST PRICE"

# 3 1/2" DS/DD

# 35p/inc VAT

## 100% CERTIFIED

PRICES PER DISK	DS/DD	DS/HD
10 - each.....	55p	99p
50 - 200 .....	49p	86p
250 - 400 .....	39p	79p
450 - 1000 .....	35p	73p

UNBRANDED BULK, SONY, JVC OR 3M PACKED 10 OR 50 pcs EA

5.25" FROM

DS/DD 25p each

DS/HD 55p each

INTERNATIONAL BRANDS PKG 10+

COMPLETE LINE OF ACCESSORIES AVAILABLE AT DISCOUNT PRICES.

Add £2.80 for P&P - All prices include VAT/labels. To order send cheque/P.O/ or call



PHONE: 081 759 8829  
FAX: 081 897 0407

VISA

**US COMPUTER SUPPLIES**  
Room 130/G, Building 521, Cargo Centre, London Heathrow TW6 3LL

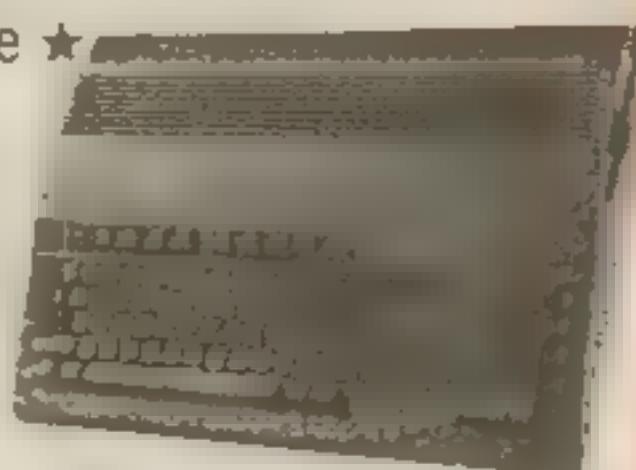
PRODUCTS/PRICES SUBJECT TO CHANGE WITHOUT NOTICE



# AMIGA DEALS

## AMIGA 500 STANDARD PACK

- ★ A500 computer ★ 512k RAM ★ 1Mb disk drive ★
- ★ mouse ★ modulator ★
- ★ power supply ★ operation-manuals ★
- ★ workbench disks, etc. ★



ONLY **£339.95**

### BATMAN PLUS PACK

- ★ Amiga as in standard pack
- ★ Batman the Movie
- ★ F18 Interceptor
- ★ New Zealand Story
- ★ Deluxe Paint 2
- ★ Megablast joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST **£369.95**

### FLIGHT OF FANTASY PLUS PACK

- ★ Amiga as in standard pack
- ★ F29 Retaliator
- ★ Rainbow Islands
- ★ Escape from Planet of Robot Monster
- ★ Deluxe Paint II
- ★ Megablast joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST **£369.95**

### SCREEN "GEMS" PLUS PACK

- ★ Amiga as in standard pack
- ★ Days of Thunder
- ★ Shadow of the Beast II
- ★ Back to the Future Part II
- ★ Knightbreed
- ★ Deluxe Paint II
- ★ Megablast joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST **£369.95**

## THE ALL NEW... ULTIMATE GAMES PACK

Choose any of the above three packs and add the following:

**EXCLUSIVE** Dowling Mega Ten Game Pack comprising: RVF Honda, Datastorm, Dungeon Quest, E-Storm, Grand Monster Slam, Kid Gloves, Powerplay, Shufflepuck Cafe, Microprose Soccer, Tower of Babel.

**PLUS** The Classic Tenstar Pack comprising: Ikari Warriors, Buggy Boy, Wizball, Terrorpods, Barbarian, Thundercats, Art of Chess, Amegas, Insanity Flight, Mercenary.

TOTAL RRP OVER **£450**

ALL THIS FOR THE UNBEATABLE PRICE OF: **£399.95**

### AMIGA 1 1/2 MEG UPGRADE BOARD

- ★ Uses latest 4 chip design
- ★ Memory on/off switch
- ★ Option of battery backed clock
- ★ Full 12 month guarantee
- ★ New super low price

**£29.95**  
Clock Version  
**£34.95**

### 3 1/2" HIGH QUALITY DISKS

- Box of 50 ..... **£19.95**
- Box of 100 ..... **£37.95**
- Roll of 1000 labels ..... **£5.99**
- ★ 100% certified ★ Individually wrapped
- ★ "Made in Japan" media ★ Fully guaranteed

### CUMANA CAX 354 DISK DRIVE

- ★ Latest slimline design
- ★ Quiet, high precision head positioning
- ★ High speed access
- ★ Acknowledged as "the best" (ST Version £69.95)

RRP **£89.95**  
**£64.95**

## NEW COMMODORE 64 NIGHTMOVES/MINDBENDERS PACK

Comprises:

- ★ The worlds best selling home computer - the Commodore 64
- ★ C2N cassette unit ★ 2 joysticks PLUS:- Nightmoves games
- ★ Nightbreed ★ Shadow Warriors ★ Midnight Resistance
- ★ Secret Agent Sly Spy ★ Mindbenders games ★ Trivial Pursuits
- ★ Snare ★ Confuzion ★ Split Personalities

ALL FOR JUST **£149.95**

Plus FREE exclusive to Dowling "Music Studio Software Pack"

Whilst stocks last!

### NEW MUSIC-X JUNIOR

provides everything that the average amateur musician could possibly require" Amiga Format N.B. Fully compatible with Music X RRP £79.95 OUR PRICE **£49.95**

### MUSIC-X

Enhanced 1.1 Version

Widely acknowledged as the best music package available. Now with even more enhancements it cannot be beaten N.B. Be wary of older versions being sold cheaper

RRP **£149.95** OUR PRICE **£89.95**

### MIDI INTERFACE

Our own beautifully designed product, colour co-ordinated and designed to sit on your Amiga. Features: 1 x in, 1 x thru, 2 x out. Comes complete with midi lead (extras: £2.99)

RRP **£29.95** OUR PRICE **£19.95**

## THE NEW 200 SERIES FROM **star** "The best printers just got better!"

### LC200 FACT FILE

- ★ Multi-purpose 9-pin, 80 column dot matrix printer with colour
- ★ Black and colour ribbons included as standard
- ★ Electronic dip switches (see LC24-200)
- ★ 180 cps draft elite/45 cps Near Letter Quality
- ★ High speed draft facility 225 cps at 12 cpi
- ★ Swivel selectable push or pull tractor
- ★ Bottom feed
- ★ Advanced paper parking with sheet feeder installed
- ★ Eight resident NLO fonts: Courier, Sanserif, Orator, Script and italic versions

RRP **£297.85**

OUR PRICE **£199.95**

### LC24-200 FACT FILE

- ★ Versatile 24-pin 80 column dot matrix printer
- ★ 200 cps in draft elite/67 cps in Letter Quality mode
- ★ 10 Resident LQ fonts
- ★ A high speed draft facility of 222 cps at 10 cpi
- ★ Swivel selectable push or pull tractor
- ★ Bottom feed
- ★ Advanced paper parking with sheet feeder installed
- ★ The economy of first and last line printing
- ★ 7 K-byte buffer expandable to 39 K-bytes
- ★ 11.7" carriage (A4 landscape format)
- ★ Multi-part mode for 1 + 4 copies

RRP **£366.85**

OUR PRICE **£239.95**

### LC24-200 COLOUR FACT FILE

- ★ Multi-purpose colour version of the 24-pin LC24-200
- ★ Seven colour printing - black, purple, orange, green, pink, blue and yellow
- ★ 30 K-byte buffer expandable to 62 K-bytes
- ★ 10 resident Letter Quality fonts Sanserif, Times Roman, Courier, Prestige, Script and Italic versions
- ★ Electronic dip switches operable from the push button front control panel (as the LC24-200 mon version)
- ★ Optional font cards including Russian
- ★ Standard black ribbons available for economy purposes

RRP **£424.35**

OUR PRICE **£279.95**

### COMMODORE 1084S OR PHILIPS 8833

- ★ Stereo colour monitor
- ★ Can be used as T.V. with tuner
- ★ Includes cables

**£249.95**

### A590 HARD DRIVE

- ★ Official Commodore hard drive
- ★ Sockets for 2Mb RAM
- ★ Complete with free software pack
- ★ Built-in P.S.U./cooling fan

**£269.95**

### PHILIPS T.V. TUNER

- ★ Converts your 1084S/8833 into a colour T.V.
- ★ Complete with aerial and plug
- ★ Free 1 years on-site maintenance

**£69.95**

### AMIGA/ST MOUSE

- ★ Replacement mouse by contriver
- ★ Free mousemat
- ★ Free mousehouse
- ★ Full 1 year guarantee

RRP **£34.95**

OUR PRICE **£19.95**

# COMPUTERS

UNITS 48-50 TYNE ROAD, SANDY, BEDS, SG19 1SA

DOWLING





## PRINTERS

	RRP	OUR PRICE
Star LC10 Mono 144/36 cps	£229.95	£149.95
Star LC10 II 25% faster version	£263.35	£169.95
Star LC10 colour, 7 colours	£297.85	£189.95
Star LC24-10 - 24 pin multifont	£343.85	£229.95
Star LC24-15 wide carriage version of LC24-10	£573.85	£389.95
★ Star FR10 300/76 cps, 31K buffer, 16 NLQ fonts	£527.85	£369.95
★ Star FR15 wide carriage version FR10	£688.85	£459.95
★ Star XB24-10 professional 24 pin series, 27K buffer	£688.85	£459.95
★ Star XB24-15 wide carriage version of the above with 41K buffer	£907.35	£599.95
★ Star LS08 LASER PRINTER 1Mb Ram, 300 x 300 dpi	£2172.35	£1399.95
Star LC10 sheet feeder (auto)	£74.75	£59.95
Star LC10 mono ribbons	£5.95	£3.95
Star LC10 colour ribbons	£7.95	£5.95
Star LC24-10 ribbons	£7.95	£5.95
Star LC10 quality dust cover	£7.95	£5.95

★ 12 months on-site maintenance

## ATARI DEALS

### DISCOVERY PACK 520ST-FM 512K RAM

#### HARDWARE:

520ST-FM computer & mouse, internal 1Mb disk drive, modulator & PSU ..... £299.99

#### SOFTWARE - ENTERTAINMENT

BOMB JACK - platform style game with excellent graphics ..... £19.95  
CARRIER COMMAND - 3D graphic land, air and sea battle ..... £24.95  
OUTRUN - fast action Ferrari driving game from the arcades ..... £9.99  
SPACE HARRIER - ultra fast 3D shoot 'em up arcade classic ..... £19.95

#### SOFTWARE - BASIC/GRAPHICS/UTILITIES

FIRST BASIC - easy to use BASIC programming language ..... £49.99  
NEOCHROME - powerful paint package with utensils ..... £29.99  
STOS GAME CREATOR - create sprite based action packed games ..... £29.95  
ST TOUR TUTORIAL - simple but effective GEM tutorial ..... £4.99

BOOK: DISCOVER THE ATARI ST - comprehensive introduction to ST ..... £6.95

#### ACCESSORIES - EXCLUSIVE TO DOWLING

KONIX MEGABLASTER JOYSTICK ..... £6.99  
HIGH QUALITY MOUSEPAD ..... £6.99  
DUST COVER ..... £6.99

TOTAL RRP OVER £510

OUR PRICE £259.95

### TURBO PACK 520ST-E 512K RAM

#### HARDWARE:

520ST-E COMPUTER & MOUSE, INTERNAL 1Mb DISK DRIVE, MODULATOR & PSU ..... £399.99

#### SOFTWARE - ENTERTAINMENT

ANARCHY - 4 level parallax scrolling shoot 'em up ..... £19.99  
BLOOD MONEY - challenges the most battle hardened gamer ..... £24.95  
DRAGONS BREATH - battle to win immortality, arcade strategy ..... £29.95  
HUMAN KILLING MACHINE - a tough martial arts arcade game ..... £14.95  
IMPOSSIBLE MISSION II - platform graphic adventure with quizzes ..... £19.95  
INDIANA JONES - LAST CRUSADE - help Indy find the grail? ..... £19.95  
OUTRUN - fast action Ferrari driving game from the arcades ..... £9.99  
SUPER CYCLE - arcade action on the back of a bike ..... £19.95

#### SOFTWARE - BASIC/GRAPHICS/UTILITIES/MUSIC

FIRST BASIC - easy to use BASIC programming language ..... £49.99  
HYPER PAINT II - powerful paint package with extensive utilities ..... £34.99  
MUSIC MAKER 2 - anyone can create joyful sounds with this ..... £49.95  
STOS GAME CREATOR - create sprite based action packed games ..... £29.95

#### ACCESSORIES - EXCLUSIVE TO DOWLING

KONIX MEGABLASTER JOYSTICK ..... £6.99  
HIGH QUALITY MOUSEPAD ..... £6.99  
DUST COVER ..... £6.99

TOTAL RRP OVER £740

OUR PRICE £339.95

### NEW ENHANCED ATARI 520STE DEALS NEW ENHANCED

The new STE computers from Atari are compatible with the STFM but with enhanced features including:  
★ stereo sound ★ new blitter chip ★ extra joystick ports ★

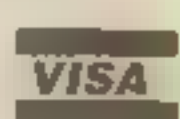
520STE 1Mb RAM ..... £339.95  
520STE 2Mb RAM ..... £399.95  
520STE 4Mb RAM ..... £469.95

FREE £110 HYPERPACK with every 520STE comprising:  
Hyperpaint ..... rrp £35.99  
Hyperdraw ..... rrp £11.99  
Bore-dino ..... rrp £29.99  
Metacomeo Basic ..... rrp £24.99  
Total rrp ..... £112.96

TELESALES ORDER LINE 0767 681760 (8 lines)



## HOW TO ORDER



### BY PHONE



Simply call our head office quoting your Access/Visa number on

(0767) 681760

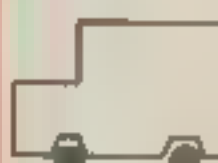
(8 lines)



### BY POST

Make cheques, building society drafts or postal orders payable to:

**Dowling Computers**



### DELIVERY (UK Mainland, most areas)

Please add £6 courier delivery for orders over £100, add £2 p&p for orders under.

★★★★★★★★★★★★★★★★

## GOLD CLUB SERVICE

- ★ 7 day money back guarantee if not completely satisfied
- ★ 30 day exchange for new policy should a fault occur
- ★ 1 year guarantee giving FREE collection and delivery service should a fault occur
- ★ Exclusive gold card with personal membership number entitling you to special offers
- ★ All this for a nominal £10 per item over £100

## PRICE PLEDGE

We know the majority of you prefer to buy from us but are sometimes tempted by smaller companies offering a £1 or so price difference. That is why we have now introduced our

"PRICE PLEDGE"

"WE WILL MATCH ANY PRICE OFFERED ELSEWHERE ON A SAME PRODUCT BASIS"

★ Subject to stock

## WHY CHOOSE DOWLING?

- ★ **ESTABLISHED OVER 4 YEARS**  
With a growing reputation for 'putting the customer first'. We intend to satisfy many more customers for years to come
- ★ **TECHNICAL SUPPORT/ON-SITE ENGINEERS**  
Employing over 20 specialist staff, we are equipped to deal with the majority of queries
- ★ **FULL TESTING PROCEDURE**  
All computer hardware is tested prior to despatch, proving Dowling's commitment to customer care

*So choose Dowling and put our reputation to the test!*



**TELESALES OPEN 10.00am till 12.00 midnight (Mon-Sat)**

## PRINTERS

All of our printers come with a free cable and have a full 1 year warranty.

Star LC10 Mono (9-pin)	£157.00
Star LC200 (9-pin) <b>*NEW*</b>	£230.00
Star LC24200 (24-pin) <b>*NEW*</b>	£275.00
Panasonic KXP1124 (24-pin)	£249.00
Panasonic KXP1624	
15" carriage (24-pin)	£399.00
Hewlett Packard Deskjet Plus	£459.00
HP Deskjet Plus FX85 Module	£59.00
Citizen Swift 24 (24-pin)	£299.00
Swift 24 Colour Kit	£34.95

## PRINTER RIBBONS

All of printer ribbons are GENUINE manufacturer ribbons - we do not sell inferior copies!

1 x LC10 Black Ribbon	£3.50
5 x LC10 Black Ribbons	£16.95
1 x LC10 Colour Ribbon	£5.20
5 x LC10 Colour Ribbons	£24.95

Swift 24 Black Ribbons (each)	£3.95
Swift 24 Colour Ribbons (each)	£13.95

1 x Panasonic KXP1124 Ribbon	£8.95
5 x Panasonic KXP1124 Ribbons	£39.99
10 x Panasonic KXP1124 Ribbons	£69.99

## ATARI LYNX

Lynx Games Machine (with free California Games)	£159.00
Game Cards :	

Blue Lightning	£22.50
Chips Challenge	£22.50
Electrocop	£22.50
Gates of Zendocon	£22.50
Gauntlet III	£25.00
Slime World <b>*NEW*</b>	£25.00
Klax <b>*NEW*</b>	RING

### NEW GAMES COMING SOON

Paper Boy	Cyberball
Flying Ace	Zarlor
A.P.B.	Mercenary
3D Barrage	Xenophobe
Road Blasters	Rampage
Super Soccer	Vindicators
Chequered Flag	Turbo Sub
	Junk Yard Dog

PHONE FOR AVAILABILITY

## REMEMBER ALL OF OUR PRICES INCLUDE VAT AND DELIVERY

## IBM PC COMPUTERS

AMSTRAD PC 2000 RANGE, PPC + ALT LAPTOPS and the new AMSTRAD GENERATION 3 SERIES, COMMODORE PC, ATARI PC, GOLDSTAR PC etc etc  
**PHONE NOW!**

## MICE

Contriver - ST compatible	£18.95
Contriver - Amiga compatible	£19.95
Contriver - PC compatible	£23.50
Contriver Trackball ST	£29.99
Naksha - ST/Amiga/Amstrad PC	£34.99

## ATARI PORTFOLIO

Portfolio Pocket PC	£179.95
Parallel Interface + cable	£39.95
32K Memory card	£46.75
64K Memory card	£82.95
128K Memory card	£119.00
Finance Card software	£47.50
PC Application software	£47.50
Utilities Card software	£47.50
Serial RS-232 Interface	£56.95
Super Memory Expander	£184.95
Portfolio Card Drive	£67.50
Mains Power Adaptor	£11.99

## PHILIPS 8833 COLOUR MONITOR

All of our Philips 8833 colour monitors come with 12 months on-site warranty and are supplied with a cable of your choice :

8833 + STFM cable	£249.00
8833 + STE cable	£249.00
8833 + Amiga cable	£249.00

## ATARI ST ACCESSORIES

SM124 Mono Monitor	£99.99
Megafile 30 Hard Disk	£449.95
Megafile 60 Hard Disk	£619.95
SLM804 Toner Cartridge	£37.50
SLM804 Replacement Drum	£159.99
Roctec 1 MB External Drive	£75.00
Forget-Me-Clock II Card	£24.95
ST Monitor Switch Box	£14.95
STE Stereo scart lead	£12.99
STFM standard scart lead	£7.95
Replacement STFM/E PSU	£99.95
Atari CX40 Joystick	£4.95
Joystick/Mouse extension lead	£4.75
Replacement Mouse lead	£3.75
Standard Parallel Lead	£5.95
Mouse Mat	£3.50
14 Pin Din Plug (ST disk drive)	£2.25
14 Pin Din Socket (ST disk drive)	£2.95
Pin Din Plug (ST monitor)	£1.95

## AMIGA A500 ACCESSORIES

512K Ram Upgrade with clock	£39.95
A590 20Mb Hard Disk drive	£369.95
A590 1Mb Ram Upgrade	£49.00
Roctec external disk drive	£73.00
Vidi Amiga video digitiser	£99.99
Amiga Stereo Scart Lead	£9.99
Mouse Mat	£3.50

## AMIGA / ST SOFTWARE

Power Pack software (ST)	£34.99
Hyper Pack software (ST)	£14.95
Discovery Pack software (ST)	£19.95
Turbo Pack Software (ST)	£24.99
Tenstar Pack - 10 games (ST)	
<b>*NEW*</b> Phone for details	£29.95
Timeworks DTP (ST)	£69.99
First Word Plus (ST)	£56.99
Astra Pack - 10 games (Amiga)	
<b>*NEW*</b> Phone for details	£29.95
Photon Paint version 1 (Amiga)	£9.95
Photon Paint version 2 (Amiga)	£39.95
Deluxe Paint version 3 (Amiga)	£59.95
AMIGA PACK 1 : F29/R.Bow Island/Robot Monst/DPaint 2	£19.95

# BLANK DISKS

All of our blank disks are guaranteed and supplied with labels. Our 3.5" Unbranded disks are either KAO or Sony. All Sony Branded disks are boxed and supplied with labels (all Sony 5.25" disks are supplied with write protect tabs). All disk prices include vat and delivery.

QUANTITY	10	20	30	50	100
UNBRANDED 3.5" DS/DD	5.99	10.99	15.99	25.99	49.00
SONY BRANDED 3.5" 2DD	9.50	18.50	26.50	42.00	80.00
UNBRANDED 3.5" HD	14.95	27.95	39.95	59.99	115.00
SONY BRANDED 3.5" HDD	27.50	53.00	77.00	120.00	235.00
UNBRANDED 5.25" 360K	3.25	6.25	9.25	14.95	27.50
SONY BRANDED 5.25" 2D	7.95	15.50	22.50	36.99	69.99
SONY BRANDED 5.25" HDD	12.99	24.99	34.99	56.99	99.99

# AMIGA A500

all of the packs listed below come with :  
\* Amiga A500 computer, modulator, mouse, DELUXE PAINT 2 etc

## BATMAN PACK

Batman, New Zealand Story and F18 Interceptor

## or FLIGHT OF FANTASY

Robot Monsters, Rainbow Island and F29

## or SCREEN GEMS PACK

Days of Thunder, Back to the Future II, Nightbreed and Shadow of the Beast II

ALL THIS FOR ONLY

**£ 359.00**

## A500 BASE PACK

\* Commodore Amiga A500 computer  
\* Modulator, Mouse + instructions

**£ 339.00**



# SPECIAL ANNOUNCEMENT!

## IF YOU ARE THINKING OF BUYING AN ATARI STE THEN READ THIS FIRST!

Atari have now confirmed that all future shipments of Atari STE computers will no-longer have the sockets allowing simple expansion using plug-in SIMM memory modules. The new design will involve de-soldering existing RAM and soldering directly to the PCB any new RAM expansions (thus invalidating your warranty) - that's the bad news. The good news - We were the FIRST dealer in the country to discover this and we instantly secured a large stock of the last remaining easily upgradable machines in the UK. There will be no more. We are offering these machines with and without expanded memory etc (see below). As an added bonus, Atari have also confirmed that all new shipments of STE computers will have the new DMA chip set. This will enable trouble free operation of Atari hard disk drives. Until now there have been some machines which have caused problems with Atari hard disk drives (see NCE Issue 102 page 9).

REMEMBER - ONCE STOCKS OF THESE MACHINES HAVE GONE THERE WILL BE NO FURTHER STE COMPUTERS WHICH CAN BE EASILY UPGRADED WITHOUT AFFECTING YOUR WARRANTY. WHICH MEANS BUYING A 4 MEGABYTE MACHINE "OFF THE SHELF" WILL MEAN BUYING A MEGA 4 ST (WITHOUT THE STE FEATURES) AT OVER £1000 !! **RING TODAY FOR FURTHER DETAILS**

**REMEMBER ALL PRICES INCLUDE DELIVERY + VAT**

## ATARI STE

### THE ATARI STE TURBO PACK

Consists of STOS Games Creator, First Basic, Hyper Paint II, Music Maker II, 8 great games (Indiana Jones & the Last Crusade, Impossible Mission II, Human Killing Machine, Super Cycle, Outrun, Dragons Breath, Anarchy and Blood Money) and a joystick

520STE 512K TURBO	£369.00
520STE 1MB TURBO	£389.00
520STE 2MB TURBO	£439.00
520STE 4MB TURBO	£549.00

### THE ATARI STE POWER PACK

Consists of 20 great software titles (Afterburner, R-Type, Gauntlet 2, Super Hang On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzal, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray) and a joystick.

520STE 512K POWER	£389.00
520STE 1MB POWER	£409.00
520STE 2MB POWER	£459.00
520STE 4MB POWER	£569.00

All STE computers are checked prior to despatch and all prices include VAT and delivery by courier. PLEASE RING FOR CURRENT PRICES AS THEY DO SOMETIMES CHANGE !!!

## STE RAM KITS

DIY 1 KIT - 520STE to 1MB ( 2 x 256K cards ) SIMMS or SIPPS	£34.99
DIY 2 KIT - 520/1040 to 2MB ( 2 x 1MB cards ) SIMMS or SIPPS	£109.00
DIY 4 KIT - 520/1040 to 4MB ( 4 x 1MB cards ) SIMMS or SIPPS	£205.00

All RAM prices include VAT and delivery and come with instructions.

## ATARI STFM POWER PACK

- ★ Atari 520STFM computer
- ★ 20 top selling games (Afterburner, R-Type, Gauntlet 2, Super Hang On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzal, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray)
- ★ Mouse, Joystick and instructions

ALL THIS FOR ONLY

# £299.00

or maybe try our 520STFM DISCOVERY PACK at only £ 279.00

## SM124 HI-RES MONOCHROME MONITOR

THE ATARI SM124 HIGH RESOLUTION MONOCHROME MONITOR is recommended for all serious applications on the Atari STFM / STE. For example: Word Processing, MIDI, DTP, CAD etc etc. Resolution: 640 x 400

STILL ONLY  
**£99.99**  
INCLUSIVE OF VAT + DELIVERY

## ST GAMES ONLY £1.75 EACH

Afterburner, R-Type, Gauntlet 2, Super Hang On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzal, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray.

All of the above games are available in the Power Pack Software pack for only

**£34.99** (that's less than £1.75 each!)

(requires double-sided internal disk drive)

## BEST PRICES

(DEPT NCE), UNIT A, GRAFTON PLACE,  
WORTHING, WEST SUSSEX. BN11 1QX

# (0903) 700714

TELESALES - 10am till 12 midnight  
ANSWERPHONE - 12 midnight till 10 am

All prices include VAT and UK delivery unless otherwise stated. All prices / specifications / special offers are subject to change without notice. Goods usually despatched same day as cleared payment is received. Please make cheques/P.O.'s out to BEST PRICES. Mail order only, callers and collections only by prior arrangement with us. Thank You.

ADD £5.00 INC VAT FOR NEXT WORKING DAY DELIVERY, ADD £25.00 INC VAT FOR SATURDAY DELIVERY  
ADD £12.50 FOR AM WEEKDAY DELIVERY, ADD £20.00 FOR 72HR COURIER DELIVERY TO N.IRELAND



# WHOLE WIRED WORLD

A regular trip around the world with Steve Gold.

## ELIE KENAN RESIGNS FROM ATARI

The big news from across the Atlantic is that Elie Kenan – the big cheese from Atari France, drafted in a few months ago to Atari's North American operations to assume the role of US and Canadian general manager – has returned to his native France.

As this edition of WWW goes to press, reports are still somewhat garbled, with Atari staffers claiming that Kenan has returned to France for a big Atari show there. Both *ST Report* and *Z-Net*, the two major US on-line newsletters, however, say that Kenan left Atari US rather hurriedly after a meeting with Atari's Jack Tramiel.

According to *Z-Net*, Kenan had been looking at relocating Atari's US headquarters to Boston, presumably in an effort to save money, but was overruled by Tramiel.

Whatever actually happened – and ST users are unlikely to discover the real events – Kenan's departure comes as a body blow to the US Atari community, especially since it was only a week ago that he was to be found at Atari ST shows discussing the future of Atari.

Kenan's place is taken by Greg Pratt, a long-timer with Atari in the company's finance department, who ran the ill-fated Federated Store group in the latter stages of it being wound up as an Atari operation. Although widely regarded as a competent replacement to Kenan, most in the on-line ST community admit he lacks Kenan's charisma and reputation.

## HIGH-CAPACITY DISKS

Verbatim has begun shipping the industry's first 3.5-inch floppy disks capable of storing up to 4Mb of data using conventional drive technology. The slight snag is that they cost \$15 each and are sold in boxes of ten for \$149.95. They can also be used as conventional floppy

disks, although that's like throwing money down the drain.

## ATARI TAIWAN CHARGED WITH SOFTWARE PIRACY

Atari's Taiwan subsidiary has been charged with allegedly using pirated copies of common software programs, according to the UPI news wire. The charges were handed out after a court-ordered search of Atari Taiwan's premises in April of this year.

According to informed sources, Taiwanese officials discovered what appeared to be unauthorised copies of Ashton-Tate's *dBase III Plus* and *Lotus 1-2-3* during the search. Atari subsequently claimed that the programs were being used by two of its staff without any knowledge on the part of senior company officials.

I'm inclined to believe this story since I know of several companies I myself could walk into and 'discover' unauthorised copies of business programs. It's interesting to note that Taiwanese officials chose to prosecute Atari Taiwan rather than sort the matter out amicably.

For its part, Atari Taiwan says that the Taiwanese government has blown the case up out of all proportion, as less than a dozen pirate copies of programs were actually involved.

"Being a computer company, we are very sensitive to the software community," said August Liguori, vice president of finance with Atari, "we fight this kind of piracy all the time. It would be foolish for us to cheat our own peers over a few hundred dollars."

## WINDOWS FOR COMDEX

Commodore has revealed that Amiga Unix – its port of AT&T Unix System V version 4.0 – is being beta-tested in universities around the world and that X-Windows is being ported to the Amiga

Unix and Amiga DOS operating system environments.

X-Windows is a graphical user interface (GUI) front-end that is used in many Unix applications. The X-Windows port is reportedly being beta-tested by educational establishments in the US, Canada and the Netherlands.

Commodore has also formally announced the A2410 graphics card for the A2000 Amiga and up. The card, which has a resolution of 1,024 by 1,024 pixels, can display up to 256 colours out of a 16 million colour palette. This colour resolution – not seen before on the Amiga – is made possible by the use of the TI 34010 graphics co-processor which speeds up the Amiga's display. Although no new Amigas are expected from Commodore at next month's Comdex Fall computer show in Las Vegas, these new goodies should form the mainstay of the Commodore Amiga show at Comdex on November 12.

## SENTRY BEGINS SHIPPING

Dave Beckemeyer of BDT has announced that *Hard Disk Sentry* for the Atari ST has begun shipping. The \$49.95 package is a hard disk utility system that, as well as optimising, verifying and de-fragmenting ST disks at high speed, also handles partitions in excess of 16Mb. Like Gazelle's *Optune* package for the PC, *Hard Disk Sentry* uses an intelligent system of de-fragmentation, only deleting the original file clusters once the cluster data has been written and verified to another part of the hard disk. So even if the power fails in the middle of a program run, absolutely no data is lost from the ST's hard disk.

BDT Incorporated, PO Box 21575, Oakland, California CA 94620, United States. Tel: 010-1-415-530-9637.

## FUJITSU FOLLOWS POQET

Fujitsu has just announced the release of a 2.2-pound pocket notebook computer called the FM R-Card. The unit comes with a tiny 'scrabble key' keyboard and an 80 x 25 line screen. It is fully MS-DOS compatible. If that specification sounds like the Poqet computer, launched earlier this year in the US and subsequently in the UK, it's because Fujitsu has a 58 per cent stake in Poqet – hence the similarity between the two machines.

The FM R-card PC will go on sale next January in Japan for just under \$2,000 – that's cheaper than the official Poqet variety, but don't rush out to buy one just yet, as the Fujitsu unit uses a unique computing standard that is not actually IBM-compatible. Fujitsu says it doesn't plan to market the machine overseas, although Poqet might try and introduce a similar model in the US that will be IBM-compatible. Remember to watch this space.

## ROW OVER TT SOFTWARE

A row appears to be brewing over Atari's decision to limit the software available in its new desktop package for the new TT series, which uses a ROM-based version of the software.

This effectively limits the new desktop to the TT, unless some genius hacks the software and ports it to disk. Which is exactly what one unknown pirate has done, with the result that the TT desktop software is now circulating like wildfire among the American ST community. Atari has no plans to do the same thing officially, so ST users are turning to the pirate copies to obtain the benefits of the TT desktop. A crazy situation and one that cannot enhance Atari's reputation amongst the user base. ■



• Strangled at birth. The Atari TT - will its software development be left to the hackers?



**PHONE**  
Blandford  
(0258) 451347

# BUILD IT YOURSELF!

**FAX**  
(0258)  
456046

## MOTHERBOARDS

**XT TURBO** 12MHz, V20,  
Small size, takes 256k ■ 4 DIL.  
**£62.10**

**AT TURBO**  
12MHz, baby size up to  
4M on board. **£158.00**

**AT TURBO** 16MHz version  
**£205.00**

**AT TURBO**  
with EMS 12MHz, up to 5Mb on  
board. **£188.00**

**386SX ALL-IN-ONE**, 16MHz  
includes floppy, serial and parallel  
ports. Takes 1M x 1 **£399.00**

Memory is available for all these  
boards. Please call for current prices

## CASES AND PSUS

**XT/AT**  
Three 5.25" and 3.5"  
slots or disks, flip top lid **£44.50**

Suitable 180W PSU **£44.55**

**DE-LUXE**. With speed  
display **£65.00**

Suitable 200W PSU **£69.00**

**MINI TOWER** with  
speed display **£72.50**

Suitable 200W PSU **£69.00**

## I/O ADAPTORS

**SERIAL RS232** **£16.10**

**DUAL RS232** **£24.10**

**SERIAL/PARALLEL/GAME**  
Com 1, 2, 3, 4, Par 2, 3 Links **£14.50**

**DUAL SERIAL + PAR**  
+ **GAME** **£25.00**

**XT SERIAL/PARALLEL/**  
**CLOCK/FLOPPY/GAME** **£31.50**

## KEYBOARDS

101 Key XT/AT switch **£46.00**

101 CHERRY XT/AT **£65.50**

## PC-DIY BOOK

If you are not sure how to go  
about building your own PC,  
then this is for you! 112 pages  
full of practical tips for £7.95  
inclusive. (NO VAT)

## DISPLAY ADAPTORS

**HERCULES** plus printer **£39.20**

**DUAL CGA/HERC** **£38.00**

**EGA PLUS** **£99.50**

**VGA 8 bit** **£99.00**

**UNIVERSAL VGA** 8/16 bit VGA,  
EGA, CGA, MDA, Hercules.  
Standard plus 800 x 600 plus  
1024 x 768 resolution **£137.00**

## MONITORS

**MONO 12" green** **£73.00**

**VGA 14" paper white** **£165.60**

**VGA 14" colour** **£389.00**

Remember! All our prices  
include VAT.

Call for FREE catalogue  
Carriage £3.00 for goods  
under £40, £9.00 for goods  
over £40 in total

## FLOPPY DRIVES

5.25" 360K ..... **£66.70**

5.25" 1.2M ..... **£80.50**

3.5" 720K ..... **£71.76**

3.5" 1.44M ..... **£85.56**

5.25" cradle for 3.5" drive  
adaptor and cables ..... **£12.50**

## DISK CONTROLLERS

### UNIVERSAL FLOPPY

DRIVES 380/1.2/720/1.44 drive  
AT and 386 systems ..... **£24.50**

XT Hard/Floppy controller **£81.00**

XT Hard disk controller ..... **£65.00**

AT floppy/hard controller **£107.00**

## 'SKELETON' SYSTEMS

These consist of motherboard,  
case and PSU. You add the rest!

XT 12MHz ..... **£155**

AT 12MHz ..... **£250**

AT 16MHz ..... **£305**

## BLACKMORE ELECTRONICS LTD

Unit 14A, Sunrise Business Park, Blandford Forum,  
Dorset DT11 8ST. Telephone Blandford (0258) 451347  
WE TAKE ACCESS, VISA AND AMERICAN EXPRESS.

TEL: **LEEDS** (0532) 637988

# FAST CHOICE COMPUTERS

UNIT 8, ARMLEY PARK COURT, OFF CECIL STREET, ARMLEY, LEEDS LS12 2AE

ALL PRICES INCLUDE VAT & DELIVERY. ALL OUR PRODUCTS ARE GENUINE UK SPECIFICATION. FULL REPAIR SERVICE AVAILABLE FREE ESTIMATES

NEW  
LOW  
PRICES

## HARD DRIVES

### AMIGA A590 20 MEG

The Commodore A590 has a built-in  
unpopulated RAM board, so you can  
easily upgrade your Amiga memory by  
up to 2 megs without invalidating your  
warranty. (Autoboots 1.3 only)

**£299.00**

Add £40.00 for each 1 meg of  
expansion

**AMIGA A590 20 MEG**  
With 2 meg of RAM **£379.00**

**DRAM CHIPS (256\*4) TOSHIBA,**  
**SAMSUNG, MOTOROLA, INTEL.**

Quantity 4 + ..... **£5.49 each**  
Quantity 8 + ..... **£5.19 each**  
Quantity 16 + ..... **£5.00 each**

## DISK DRIVES

**CUMANA AMIGA** ..... **£71.99**  
**CUMANA ST** ..... **£77.99**

## COMPUTERS

**NEW AMIGA SCREEN GEMS PACK**  
WITH BACK TO THE FUTURE 2, DAYS OF  
THUNDER, KNIGHT BREED, SHADOW OF  
THE BEAST II & DELUXE PAINT II  
**£369.00**

**NEW XMAS PACK**  
ALL YOU NEED TO GET STARTED WITH YOUR  
AMIGA. INC. 3 EXTRA GAMES, 10 DISKS, MOUSE  
PAD, CRUISER BLACK JOYSTICK, AND DUST COVER.  
ONLY £30.00 EXTRA WITH ANY AMIGA PACK

**AMIGA CLASS OF THE 90'S**  
INC. KINDWORDS 2, MAXIPLAN SPREADSHEET,  
SUPERBASE II, MIDI/MUSIC SOFTWARE, GRAPHICS  
SOFTWARE, DTP, MOUSE, MODULATOR, 10  
DISKS, MOUSEMAT AND MORE!  
NOW WITH 1 MEG OF RAM  
**£549.99**

**ATARI 520STFM DISCOVERY PACK**  
INC: 4 GAMES, STOS, NEOCHROME,  
FIRST BASIC  
**£279.00**

**ATARI 1040 STE EXTRA PACK**  
INC: 1ST WORD, ST BASE, ST CALC, ST GRAPH, FIRST  
BASIC, S.T.A.C. ADVENTURE CREATOR, HYPERPAINT,  
PRINCE (STRATEGY GAME), METACOMICO BASIC,  
MOUSE AND MANUALS  
**£429.00**

NEW

## NEW STAR PRINTER RANGE OUT NOW!

**PC200 COLOUR 9 PIN** 180 cps draft,  
landscape printing, 8 resident fonts

**£214.99**

**PC 24-200 ■ PIN** 222 cps draft, 10  
resident fonts, landscape printing  
**£259.99**

## PRINTERS INC LEADS

**STAR LC10 MONO** ..... **£159.00**  
**STAR LC200 COLOUR** ..... **£214.99**  
**STAR LC24-200** ..... **£259.99**  
**CITIZEN SWIFT 24** ..... **£289.99**  
**SWIFT COLOUR UPGRADE** ..... **£34.99**  
**EPSON EPL 700 LASER** ..... **£919.99**

### AMIGA 2 MEG BOARDS

**AMIGA 2 MEG EXP BOARDS** TAKE  
YOUR AMIGA UP TO 2.3 MEGS OF WORKING RAM  
**512K POPULATED** ..... **£56.99**  
**1 MEG POPULATED** ..... **£93.99**  
**1.5 MEG POPULATED** ..... **£114.99**  
**2.0 MEG POPULATED** ..... **£129.99**  
RING US FOR DETAILS NOW!

NEW  
LOW  
PRICES

## 3.5 INCH DISKS

**SONY/VERBATIM**  
BULK 100% ERROR FREE,  
135 TPI LIFE TIME  
GUARANTEE

QTY ..... **£**  
10 ..... **£5.99**  
25 ..... **£13.99**  
50 ..... **£25.99**  
100 ..... **£47.99**  
200 ..... **£86.99**  
300 ..... **£115.99**  
400 ..... **£149.99**  
500 ..... **£179.99**  
1000 ..... **£349.99**  
DISK LABELS 500 ..... **£7.99**  
DISK LABELS 1000 ..... **£13.99**

## MONITORS INC. LEADS

**PHILIPS CM8833** ..... **£239.99**  
**COMMODORE 1084 SD** ..... **£259.00**  
**ATARI SM124** ..... **£109.99**

- OPEN MON-SAT 9.00AM - 5.30PM
- SUNDAY OPENING 10.00AM - 3.00PM
- THURSDAY NIGHT LATE TIL 8.00PM

- FAST MAIL ORDER SERVICE
- FREE POSTAGE UK MAINLAND
- FREE 2-3 DAY COURIER SERVICE
- SPACIOUS FREE PARKING
- FULL REPAIR SERVICE FREE ESTIMATES

CALL INTO OUR SHOWROOM OR  
ORDER BY TELEPHONE  
TEL 0532 637988  
FAX 0532 637689





## **INVITATION TO TENDER SOFTWARE DEVELOPMENT CONTRACTS**

We would be pleased to receive enquiries from **EXPERIENCED** "full-function" software developers in connection with one or more software development contracts which we are seeking to place.

Detailed quotations will be required in response to general and example specifications which are available on request.

Contracts cover a range of 8 and 16 bit computer and video games systems; reasonable levels of support are available, delivery is required first half 1991.

For further details including a Proposal Form, Example Proposal and Video Tapes, please contact:

**Elite Systems Limited  
Anchor House  
Anchor Road  
Aldridge  
Walsall, West Midlands  
England WS9 8PW**

**Tel: 0922 55852  
Fax: 0922 743029**

**Contact: Diana Chambers (Administrator)  
Peter Cook (Product Analyst)**



## PROFESSIONAL 68000 PROGRAMMERS

with strong experience on the Amiga are required by a major US publisher based near  
**SAN FRANCISCO**

You will be part of a gifted and motivated team converting from Sega Genesis to Amiga some of the most famous action arcade games and subsequently working on the Sega Genesis.

You will enjoy an excellent salary, working conditions and travel expenses. Please send a full CV and demo programs for evaluation to:

**MARJACQ**

32 Cumberland Mansions  
Nutford Place  
London W1H 5ZB

Or call Jacqui Lyons on 071 724 0565



An opportunity has arisen for a talented computer artist to work within our rapidly expanding in-house development team.

The successful applicant will work on a variety of projects for all major home computer formats and various consoles.

We are currently working on arcade conversions, licensed games and original designs for leading software publishers.

We offer a competitive salary with regular pay reviews.

If you are interested in being known for working on quality games rather than bulk product then phone Pete or Stuart for an informal chat at  
**Twilight on Harrogate**  
**(0423) 500399.**

## CALLING ALL 68000 PROGRAMMERS AND GRAPHIC ARTISTS!

**GENETIX DEVELOPMENTS** are looking for dynamic programmers and graphic artists to work on our forthcoming projects.

You must be able to meet deadlines and be able to work under pressure, but still maintain quality work. In return you will be well rewarded and work with a friendly team.

Interested? Please call or write with CV and demo to:

**Tim Drew,**  
**Genetix Developments,**  
**86 Henson Park, CHARD,**  
**Somerset, TA20 1NH.**  
**or call 0460 67190.**



### SHEFFIELD BASED COMPUTER PROGRAMMERS

*PAL Developments has vacancies for experienced programmers to work on a variety of computer game based projects. Many of these include internationally famous cartoon characters.*

*An excellent working environment alongside an already established dedicated team of programmers. Programmers should have experience of working with either Z80/6502/68000, PC.*

*Salary is negotiable and will reflect the importance of this position.*

*In the first instance apply, preferably in writing, to Mr. A. D. Palmer at the address below, or telephone for an appointment.*

**Citizen**  
SOFTWARE





## OPENING TIME

**T**he name is Moseley. Ken Moseley and I'm back. For those of you who have not made my acquaintance, I am from the North and I know what I think. Let's get a few more things straight: I'm being paid a large sum of money to cover for that arrogant, soft southern, middle-class, upstart (he's not even 40 yet), Tim Smith to write his 'Centrefold'. Since I have been away, computer journalism has sunk below what I call a rattlesnake's denail in the bargain basement of Co-op down a mineshaft.

All you read nowadays is free advertising for the hardware and software firms. The reason for this? Hacks get free trips, free T-shirts, free software and free alcohol.

This is the case all over Europe and the States. Even the Reds are beginning to follow this line. Having been in Tehran for the last year or so, I was refreshed by the rather more pure level of journalism expressed in magazines. If a hack writes something his or her betters in the punters know this is a non-sexist mag, please - sub-headers don't like them it's off with his (or her - sub) hand. That's what I call editorial policy. Say what you like about Islam, it gets things done. They have grit, guts and above all else respect for authority. If only there was more of this in this once great country of ours!

Some of you may also be aware of the fact that I am currently residing in cyberspace. The reason for this is that I am a new young lad which has not yet been affected by the ravages of modern living. There are no criminals in cyberspace, there are no charlatans, no mountebanks, no nancy boys, no hard faced women and no whinging students. I will defend this brave new world from these people with flame throwers, anti-personnel mines, Napalm and any other weapon which comes my way.

Don't misunderstand me. I am not saying that people should not be free to express themselves, but sooner or later this leads to anarchy and discontent. The only way to deal with this is to drag the malcontents out into the middle of Salford rugby league ground, tie their limbs to four stout cart horses, read them their rights and yell 'giddy up'. I thank you.

# Tim Smith's CENTREFOLD

Write to 30 Monmouth Street, Bath BA1 2BW (if you dare)

## DESPATCHES

Each week *The Centrefold* brings you a glimpse at the big scene, the world scene. This week's heavily edited report comes from our man in Katmandu. It's Harley McDavis the legendary programmer of such games as *Elf's Sortee*, *Merlin's Mirthful Merry-Go-Round of Madness*, *Goblin's Quest* (the series), *The Journeys of Asolgarth*, and *The Court of Losely Locket*. Harley has been living in Katmandu since Asolgarth hit the top of the Albanian software charts and stayed there for six years.

It's alright man, don't worry about it. Life's good babe. The latest issue of *Mondo 2000* has just got here and it's wild. Anyway right, where was I? Oh yeaaaaah! There is so much hardware here that your brain would be fried like an oyster on a pewter plate in Death Valley really.

For example, there is a monk who lives around the corner on top of this pole where he's been for 11 years. He's got an Amiga 3000 and a huge long lead. He's programming his mantra into a speech simulation program. The idea being that he can concentrate on pole sitting and reading the Rubayatt while the computer does the boring stuff - he used to be a management consultant from Leeds until he jacked into a 15 minute relaxation program which over ran by two days. Wild or what!

There also an MSX user group in the suburbs. They're a bit crazy, but they're alright. Their plan is to subvert all other computers by loading every network with Z80A code. Once all the other users have been hypnotised by, and I quote "the beautiful coher-



• Despicable scenes of degradation at a Katmandu programmer's convention.

sion of the Z80's vibe" they will unleash the 100,000 spare MSX units they have stored up (yes that's where they all go) on the world at £23 each. For more information call Katmandu 83838-89383838 [voice].

That's about it for now, man. Please send the bread in US dollars for convenience and try not to psyche-out the readers with your aggressive waves. Before I go, I have to tell you about this new piece of software for the ST, Amiga, PC, CPC, PCW, Oric, Mac and Lynx. It's called *Roach-*

*Works* and is a TSR program (the packaging's really useful as well) in the mode of *Side-Kick*. It comes with a bio-rhythmic alarm clock to warn you against bad periods, a notepad which is compatible with touch sensitive screens, and it is compatible with the Grateful Dead, Stone Roses, Rolling Stones and 13th Floor Elevators records. The cost is \$129.95.

For more information call Digital Retards on Katmandu 918329-39309280928-33. Stay wild and love to the readers, man.

## QUICK QUIZ SPECIAL

### WIN POWERMONGER from Electronic arts!

This week's Quick Quiz is a tricky one for all of us. Smith left it behind before he took his limo (don't you mean pushbike? - sub) to the airport. The idea is that *The Centrefold* is to have a cartoon strip in the new year. Smith, being the little pinko he is, wants it to be a really interactive 'graphic story'. He wants the following questions answered. The prize is a copy of *Powermonger*, the brilliant game from Electronic Arts in which you get to control a planet. As I say, the idea of a cartoon strip designed by readers strikes me as being open to abuse. It also strikes me as being a 'Russki designed by a committee' idea which is bound for failure, but Smith wants your input. Whatever happened to benign dictatorships? At least they got the motorways running on time. Anyway, the questions:

1) Should the major character be

- A) A human
- B) A computer
- C) An animal
- D) Your idea...

2) What should he/she or it be called?

3) Where should the cartoon be set?

4) How long should it be?

- A) 1 frame
- B) 2 frames
- C) 5 frames

5) What should the cartoon be called?

■ Should *The Centrefold* have a cartoon at all?

The final question concerns the story-line of the first three episodes. This a supplementary question - but if your idea is chosen you will be paid £15. Send your entries to 'Charlie Brown Eat Your Heart Out Comp' *The Centrefold*, *New Computer Express*, 30 Monmouth St, Bath, Avon BA1 2BW.

## THE BLEEDING CHARTS

After much whinging by the erstwhile author of this piece of... prose one reader was irritated enough to send in his chart of his All Time Top 10 software. And here it comes. This week from Sean MacRae of Hammersmith. This is an all time top ten by the way.

- 1) *Pet Invaders* (c 1976) Invaders the size of houses
- 2) *BASIC Games & More BASIC Games* by D. Ahl.
- 3) *Ghost Town* (c 1981) Totally addictive and forgotten

4) *3D Monster Maze & Mazgogs* (c 1981) Scary stuff

5) *The Hobbit* (c 1982) Speccie game, bug ridden.

6) *Defender and Scramble* (c 1982) BBC micro. Near perfect arcade conversions

7) *Wizardry* (c 1983) Apple II. The best RPG around

8) *Elite* (c 1985) BBC B. Nuff said?

9) *Populous* (c 1989) best 16-bit.

10) *Dungeon Master* (c. 1985) Supadupa smashing fantastic your money's safe.

Can't argue with that can we? No.



# REFOLD

# THE TOSH TEN

For once this chart will be readable and witty. None of those wimpy whinging little Ten Ways to Look Good with ■ computer, anyone with a computer looks good. No more Ten Films based on computers. This chart ■ Ten Ways to Deal with Someone Attempting to Tamper with Your Micro:

- 1) Reason with them while looking down with barrel of a Mauser.
- 2) Explain that they are morally, ethically and legally in the wrong
- 3) Wipe your disk box clean with their hair
- 4) Make it clear that, if they had asked permission, you would still prefer to see a deranged shark fiddling with your keyboard.
- 5) Plug their wedding tackle into the joystick port and then play *Rick Dangerous*.
- 6) Take them to the Celtic end at an old firm match and tell them to sing the national anthem while waving a union jack.
- 7) Report them to FAST
- 8) Report them to MOSSAD, the CIA, the KGB and me
- 9) Take them into the street, flay them with a wide carriage printer and then hack off their feet
- 10) Allow them to continue tampering while you brick up the room

## CAPTION FULL STRENGTH

Even I found this picture stupid. What does this man think he is up to then eh? How did he end up in his present position? How can he get out of it? I have been authorised to put up a prize for the person

who comes up with what is thought to be a funny caption. Do remember to tell us what machine you use and what disk format it is otherwise we'll send you any old bucket of tosh.



## URGENT ANNOUNCEMENT

Readers should be aware that shortly after joining his Tosh Iain Mr Mosley was forcibly removed from the Express offices. He was beginning to rave in an uncontrollable manner about the decline of the force of law, religion and organised programming sessions. Unhappily he was still connected to his Brain.

**Booster:** Cyberspace Sensory Sock-in-Senseless Machine. The New Computer Express team must sadly announce that Ken Moreley is dead.

Or at least so far into Cyberspace that only a concerted effort by a team of highly trained freaks could rescue him. Gawd bless him and save him.

## I WISH I'D SAID THAT

Have you read or heard anything which made you reassess your views of the computer world and the wasters who populate it? Get back at them by writing into I Wish I'd Said That at the usual Centrefold address.

This week there's more drivel from the mouths and pages of people who really should know a great deal better by now.

"Well no the copy we sent you for review isn't quite finished yet. There will be sound and there

will be better collision detection. But couldn't you give it a few hundred words for now?"

*An unnamed software house PR person.*

*"What's wrong with viruses anyway?"  
Overheard at a recent large show at Earl's  
Court*

*"It's at Kensington Olympia"*  
*Tim Smith about a recent large show, at Earl's*  
*Court.*

## FROM THE ARCHIVE

Contrary to popular opinion, nostalgia is not a negative, weak characteristic. Man has a healthy desire to reflect on the good old days when things were rosier, southerners were not under your feet all the time and only people who knew how to use computers were allowed to have them. What was happening a year ago this week? Read on. **LATE EXTRA**

## ATARI ARESHIRTY

## NASA-T VIRUS

## DOWN IN FLAMES

CHINA IN YOUR HAND

## A NICE GAME OF SOOTY

CHIPS CRIME CHAOS CANES CALIFORNIA

## RIDLEY: ILLITERATE REVELATION



## CYBERSPACE — AN EXPLANATION

Many people have read these pages and have written in to ask why terms such as Cyberspace, William Gibson, Jacking In, and virtual reality are bandied about with such abandon. The reason is that the upstart wishes to appear hip. I, Count Moseley, have been to these places and I've sampled the joys. So here is a glossary of terms for computing modern like.

1) **WILLIAM GIBSON.** Gibson is an author whose works include *Count Zero*, *Neuromancer*, *Burning Chrome*, and *Mona Lisa Overdrive*. A typical Gibson phrase is as follows: "He fumbled in his back-pack for a cigarette and his simple reflection hologram" or "She wore only a bloodstained WIMOTEC overcoat and touched the button on her recon satellite comptroller". No one knows what he's talking about most of the time but he's alright by me.

2) **VIRTUAL REALITY** Not to be confused with delirium tremens. This is a term coined to explain computer generated environments.

3) **JACKING-IN:** A term used often in Gibson books to explain the process whereby a human being accesses a Virtual Reality environment or an area of Cyberspace. In the new world, people will be physically connected to their micros by jack plugs.

4) **CYBERSPACE:** Synonymous with Virtual Reality. An area of Imagination and computer generated reality.

5) **TIMBERLANDS:** A type of boot (which Smith claims he has, but the whole world knows they're fakes — sub).

6) **MONDO 2000:** An American magazine devoted to things new age and cyber (see *Express* 97).

That's about it for now. I hope this has been useful to you in trying to make sense of the upstart's rantings.

## Letter Spray

Right, here I am — a new broom. There will be none of that penny-any slanging which makes up the bulk of Smith's replies. You will not read any clever-cleverness just straight talking and good sense.

Dear Tim,

Firstly, the grovelling bit put you in a good mood and hand out a brilliant piece of software or a nice widget for my Mega ST.

Now it's the cutting time. I feel I must take umbrage at the attitude you displayed to your contributors in *Centrefold* 101. In fact your attitude made me sic (sic). I refer of course to the way you derided every mistake the contributors made whether grammatical, punctuational — look it up — or spelling.

You obviously consider yourself the cat's whiskers, naturally gifted, witty and literate. I edit a monthly magazine and also consider myself gifted, witty and literate. I depend very much on contributions and although frequently mis-spelt, and poorly constructed, with help from me they can be transformed into interesting and readable articles for my readers. I would certainly never criticise their writing ability as you do.

Why don't you direct your Tippex-tipped sabre at your colleagues instead of yourself. May I quote from page 41 of Issue 100, column three, paragraph two: "A reader, who's name and address I don't have...."? The word, Smiffy, is whose, so send me *Calamus* and the laser printer, go eat a bowl of doggy-dooes and I remain, Yours

Andy Davies, Bideford, Devon.

Andy,

Thanks for the letter. I happen to know that you edit the very smart *North Sports and Classic Car Club* magazine and so you know what you're talking about. Give people their say, that's my opinion. However, grammar is important and people should abide by the rules. If they don't apply by the rules then where are we? The problem lies not with the writers (I'm not so sure about that — sub), but with the educational establishment and the appalling quality of most spelling checkers.

Hi,

Being a born again pervert (I had a week off whilst visiting my grandmother) I have decided to write and complain about the letter sent in by TP O'Reilly (issue 102).

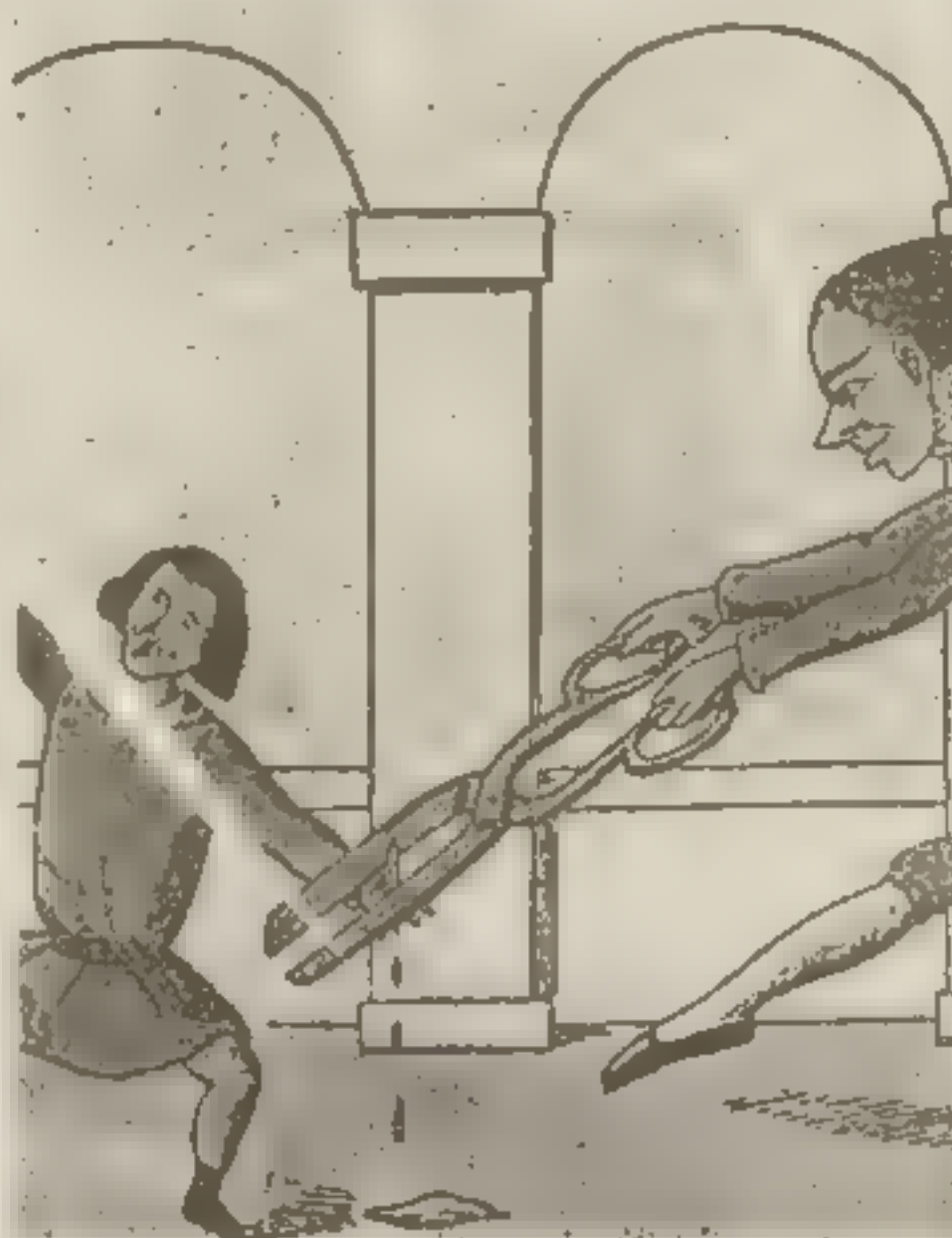
I find his self-righteous views extremely insulting and I am disgusted with your magazine for subjecting me to such degrading material. I found the picture of the two young ladies extremely tasteful, so much so that I now have a 6 foot blow-up of it on my bedroom ceiling.

If you continue to print such dribble, I shall discontinue purchasing *NCE* and I am sure that other readers will follow my example.

Yours leeringly, Dave Stanforth, Gwynedd, Wales.

Dear Dave,

The letter you refer to came from someone who believes in his faith, is not quite yet a computer user and stands by what he thinks. I say



• How to turn a 10-bit into an 8-Bit. Dealing with perverts is never easy as this early press release shows

more power to him. We need more people of Mr O'Reilly's ilk in this country. I find your childish views — and not even one mention of a computer — pathetic. You and Mr Tim Smith — Smith probably have a great deal in common but I stand by TP. Now shut up.

Dear Mr Smithy,

I was deeply shocked to read in issue 102 that you associate with Haydn Fitz-Williams. I, a victim of this butcher of reader's correspondence, feel that it is my moral duty to warn you of this monster's sinister malpractice inside *Express* Mailbag pages.

I sent in two letters which were butchered and changed. He then also failed to respond to a letter I wrote to *NCE* about this naughty deed.

This is why I write to you dear brave Mr Smith. To expose this monster, what he does and to warn would-be writers to *Express* while HFW lurks within its depths. Lest there be any more victims such as myself.

HFW must be a member of the dirty Mac brigade as he is always bragging about his Mac IIx. No answer or response inside the magazine within 3 issues following 102 will result in the tearing up of my subscription, a refund in unmailed issues and no more reading *NCE* again.

Yours an angry, very unsatisfied intellectual from the superior county of Tyne and Wear.

Dear Intellectual,

I will have you know that Haydn and I have been in this industry for more years than you could count. He was the last pupil to have passed through the much-missed grammar school system. A man with 11-Plus and honours. As a long-time systems analyst for you-know-who, Haydn has every right to cut any letter he wishes. I wouldn't imagine that Smith would agree with me here, but that's your hard luck. I will not stand for people criticising a man of such warmth and wit as HFW. And finally, what do you expect? If your letters are too long they will be cut. Think yourself lucky that you even got a look in.

## THE OUT OF TOWN TOP TEN

For some reason it is thought that getting into the far distant reaches of this country is a good thing to do. This week *The Centrefold* goes further... into Scotland. This week it comes from Dundee's Bits and Bytes store, featured in *Express* 102. The shop is run by 17-year-old Scott McLaren. Paul Varney is also there and they're both stout fellows. Call the shop on 0382 22052, or go and see them at 131 Marketgate, Dundee, Scotland. They're new, fresh and let you try the games out in the shop.

### TOP 10 16-Bit

- 1) *Kick Off* still in there, still good.
- 2) *F19 Stealth Fighter* neaaw, daka-daka but more quietly
- 3) *Cadaver 3D Isometrics*, kicking and Paul's fave.
- 4) *International Soccer Challenge* the World Cup lives on
- 5) *Lost Patrol* I've been to Nam... Cheltenham.
- 6) *Fire and Forget* Cars, guns and mayhem.
- 7) *Midwinter* up three places from issue 102.
- 8) *Finest Hour* Indeed yes, more daka-daka Ginger!
- 9) *Dragons of Flame* Dragons flying, diving and er....
- 10) *Populous* 16-bit classic

### TOP 10 8-Bits

- 1) *Addidas Championship Football* name's too long to comment
- 2) *Dragons of Flame* up a massive six places from issue 102
- 3) *Ghostbusters II* Bill Murray as a weirdo with spooks
- 4) *E-Motion* less of a way of life, more of a great game
- 5) *World Cup 90* Can Scotland win this time?
- 6) *Turrican* Extreme violence and good fun
- 7) *Shadow Warriors* Hiehhhhh, thwack and splatter
- 8) *Klax* New in to the Out of Town chart
- 9) *Back the Future* 11 Down 3 from issue 102 but still humming
- 10) *Flimbo's Quest* From the school of cute



# MICRODIAL

## ATARI

520STFM DISCOVERY PACK .....	£279.00
520STE POWER PACK .....	£369.00
1040STE EXTRA PACK .....	£460.00
PORTFOLIO .....	£199.00
LYNX .....	£165.00

## COMMODORE

AMIGA A500 BATMAN PACK .....	£369.00
A500 FLIGHT OF FANTASY PACK .....	£369.00
1 MEG BATMAN OR F.O.F. PACK .....	£440.00
A500 CLASS OF THE 90'S PACK .....	£515.00
M501 1/2 MEG UPGRADE INC CLOCK & GAME .....	£75.00
PC STARTER PACK .....	PLEASE PHONE
1 MEG SCREEN GEMS / F.O.F. ....	£440.00

## PRINTERS

STAR LC-10 .....	£169.00
STAR LC-24/10 .....	£249.00
MANNESMANN TALLY MT81 .....	£147.00
CITIZEN 120D .....	£125.00
SEIKOSHA SP2000 .....	£235.00

SOFTWARE UP TO 20% OFF RRP

THIS IS A SMALL SELECTION OF OUR WIDE RANGE - PLEASE PHONE - WE WILL TRY TO MATCH ANY PRICE

All prices include VAT and P&P, Courier Delivery add £8.

Please make cheques, P.O.'s payable to "MICRODIAL" and send to:

THE OLD CAMP SHOP, WARRINGTON LANE, ADGEN WHARF, LYMM, WARRINGTON, WA13 0SW.

All items are subject to availability, prices are subject to change without notice. All goods despatched upon cleared payment. Proprietors: Mike Todd and Mal Neary, E. & O. E.

24 HOUR ORDER LINE 0925 75 7696



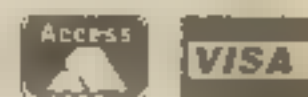
ONCE BYTTEN

39 Marling Way  
Gravesend  
Kent DA12 4DW

Tel: 0474 567964 Fax: 0474 537172

Mon-Sat 10am-8pm Callers by Appointment

PROFEX



## PARTS FOR PCs AT PARED-DOWN PRICES

As distributors for the leading range of German PCs from PROFEX we can offer their Add-on Cards & Monitors to enhance your own system.

All prices include VAT at 15%

### GRAPHICS CARDS

Mono Graphics/Printer Card (MGA/Hercules + Parallel) .....	£29.50
Colour Graphics/Printer Card (CGA + Parallel) .....	£39.99
Super EGA Level 3 (640x480 or 640x350 VGA, PGA) .....	£69.99
Super EGA Level 5 (800x600 or 640x480 or 640x350) .....	£89.99
Super VGA Card 512k (Max Res 1024x768, 9&15 pin) .....	£129.00

### MONITORS (All with Tilt & Swivel Base)

SWM 1420 MGA/HERCULES MONO MONITOR .....	£79.99
SWM 1430 VGA Monitor Monochrome 720x350 .....	£99.99
VCM 1410 VGA Colour Monitor .31 Dot Pitch .....	£259.00

### HARD & FLOPPY DISC CONTROLLERS

(All Western Digital Compatible and complete with all cables. Equivalent WD controller type in brackets)

2 HDD / 2 FDD Controller MFM 2:1 Interleave (WD1003VMM2) .....	£69.95
2 HDD / 2 FDD Controller MFM 1:1 Interleave (WD1006VMM2) .....	£79.95
2 HDD / 2 FDD Controller RLL 1:1 Interleave (WD1006VSR2) .....	£99.95

### MISCELLANEOUS

GC-1 Gamecard for Joysticks .....	£9.95
GC-2 Gamecard (Adjustable 4.77 - 16Mhz) .....	£12.95
Parallel/Serial Card (2S 1P) .....	£29.95
Clock Card - Battery Backed Clock/Calendar .....	£18.95
M2 Plus Mouse (Three Button, switchable to Microsoft Mode, 350-1050dpi res, inc DR HALO III software and 9-25 pin adaptor) .....	£25.95
M2 Plus Mouse (Includes Mouse, Holder & Mat) .....	£32.50

### HARD DRIVES

Ask us for competitive pricing on all Hard Disc requirements (and Tape Streamers and Floppy Drives too).

### PROFEX PC22

Well we had to mention our computers somewhere didn't we?

This entry level system deserves some mention anywhere.

AT Compatible with 286-12Mhz CPU, 640K memory, Mono Graphics, 20Mb Hard Disc, 5.25" 1.2Mb Floppy, MS-DOS 3.30, 102 key keyboard and Mono Monitor

£699.99 inc VAT

NB Carriage is extra. Small items £2.50, monitors and computers £9 per box.

All prices include VAT. Export orders welcome, please ask for a quote.

TRADE ENQUIRIES WELCOME - PLEASE ASK FOR KEITH McGOVERN

# CHRISTMAS SPECIALS

## OFFER 1:

Double Sided 3 1/2" Disks, Individually Wrapped, 880k 135 tpi, Ideal for Amiga, ST, etc. Blue, Pin No., made in Japan, 100% Error Free, 2 for 1 Warranty or money back.

10 x 3.5" .....	£4.90
25 x 3.5" .....	£11.95
50 x 3.5" .....	£18.50
100 x 3.5" .....	£36.00
250 x 3.5" .....	£87.50
500 x 3.5" .....	£169.00
1,000 x 3.5" .....	£310.00

Inc. labels

## OFFER 2:

Genuine Sony 3.5" Disks Double Sided, made in Japan, sold in Sony outers, probably the best disk in the World!

10 x 3.5" .....	£5.90
25 x 3.5" .....	£14.35
50 x 3.5" .....	£26.48
100 x 3.5" .....	£49.78
250 x 3.5" .....	£123.95
500 x 3.5" .....	£199.50
1,000 x 3.5" .....	£369.00

Including labels

## OFFER 3:

5.25" Double Sided 48/96 tpi for IBM PC and Clones, etc, 100% Error Free, 2 for 1 warranty or money back.

25 x 5.25" .....	£6.95
50 x 5.25" .....	£14.95
100 x 5.25" .....	£23.00
250 x 5.25" .....	£56.95
500 x 5.25" .....	£112.95
1,000 x 5.25" .....	£200.00

Complete with labels, envelopes & w.p.'s

## OFFER 4: High Density Disks.

when only the Very Best will do.

5.25" HD 1.6mb  
for IBM, AT, Etc.

3.5" D/SHD 2mb,  
made in Japan,  
HD in corner of Disk.

10 x 5.25" HD .....	£4.60	10 x 3.5" HD .....	£11.00
25 x 5.25" HD .....	£11.00	25 x 3.5" HD .....	£27.25
50 x 5.25" HD .....	£21.50	50 x 3.5" HD .....	£40.00
100 x 5.25" HD .....	£42.00	100 x 3.5" HD .....	£79.00
250 x 5.25" HD .....	£100.00	250 x 3.5" HD .....	£169.50
500 x 5.25" HD .....	£197.00	500 x 3.5" HD .....	£356.00

Including Labels, Envelopes & w.p.'s  
100% Error Free. 2 for 1 Warranty

## OFFER 5: 'Keep your data safe'

Top Quality Anti Static Lockable Disk Boxes, complete with 2 keys, Small or Large Capacity, ideal for Home or Office use!

3.5" x 40 Capacity .....	£3.95
3.5" x 80 Capacity .....	£4.50
3.5" x 100 Capacity .....	£5.50
3.5" x 120 Capacity .....	£6.50
5.25" x 70 Capacity .....	£3.95
5.25" x 100 Capacity .....	£4.95

## OFFER 6: Accessories;

Sourced from the world's leading manufacturers, Quality and Price Guaranteed. Buy with Confidence

Amiga/ST dust covers .....	£1.95
Universal Screen Filter .....	£14.95
3.5" or 5.25" Cleaning Kit .....	£1.95
Mousemat .....	£1.95
200 Labels .....	£2.99
Roll of 1,000 Labels .....	£7.50
PC or Amiga Cable .....	£5.95
Mouse House/Bracket .....	£2.40
Printer Stand with Tray .....	£13.99
Printer Stand .....	£11.95
Mouse/Joystick Extension .....	£3.95

Call for printer ribbons prices

Four good reasons for choosing Original Media as your Supplier

1 No Minimum Order

2 Access and V.I.P. treated

3 Next Day Delivery (if order placed before 12.00 noon)

4 Free Helpful Advice

Post add £3.50 per order

Next Day courier

CORPORATE

EDUCATION &

TRADE ENQUIRIES WELCOME

THE ORIGINAL

MEDIA

COMPANY LTD

TEL: (0530) 813591

Fax: (0530) 813595

Dept NCB

14 NASHBY RD

COVENTRY

CV3 5JF

0530 813591



# MICROSMART MAIL ORDER

**Tel: 0908 564369**

## AMIGA A500 SCREEN GEMS PACK

**£369** inc. VAT & next day courier

### Screen Gems Pack Includes:

- ★ Amiga A500 512K keyboard with built in 1 Meg disk drive
- ★ Free TV Modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ Joystick, Mouse Mat + 10 blank disks, Mouse & Mainsplug
- ★ Amiga Basic, Amiga Extra's 1.3 Workbench 1.3 PLUS Amiga Step by Step Tutorial
- ★ With a further four new releases - Shadow Beast II, Back to the Future II, Nightbreed, and Days of Thunder
- ★ Software has a potential RRP of £200

## AMIGA A500 SCREEN GEMS PACK +

**10 FREE GAMES**

**£399** inc. VAT & next day courier

### Screen Gems Pack Includes:

- ★ Amiga A500 512K keyboard with built in 1 Meg disk drive
- ★ Free TV Modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ Joystick, Mouse Mat + 10 blank disks, Mouse & Mainsplug
- ★ Amiga Basic, Amiga Extra's 1.3 Workbench 1.3 PLUS Amiga Step by Step Tutorial
- ★ With a further four new releases - Shadow Beast II, Back to the Future II, Nightbreed, and Days of Thunder
- ★ Software has a potential RRP of £500

## AMIGA A500 SCREEN GEMS PACK

**+ 10 FREE GAMES + MONITOR**

**£599** inc. VAT & next day courier

### Screen Gems Pack Includes:

- ★ Amiga A500 512K keyboard with built in 1 Meg disk drive
- ★ Free TV Modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ Joystick, Mouse Mat + 10 blank disks, Mouse & Mainsplug
- ★ Amiga Basic, Amiga Extra's 1.3 Workbench 1.3 PLUS Amiga Step by Step Tutorial
- ★ With a further four new releases - Shadow Beast II, Back to the Future II, Nightbreed, and Days of Thunder
- ★ Software has a potential RRP of £500
- ★ Second to none graphical pictures with 4096 colours and stereo sound including lead for the ST or Amiga



## AMIGA A500

**CLASS OF THE 90's**

### BUSINESS + EDUCATIONAL PACK

**£529** inc. VAT & next day courier

#### FEATURES:

- ★ Amiga A500 - TV Modulator
- ★ Midi interface - Software
- ★ Kind Words 11 word processor
- ★ Page Setter DTP
- ★ Super Base Personal Database
- ★ Maxplan 500 Spreadsheet
- ★ Amiga Logo BBC Emulator Deluxe Paint II
- ★ Mouse Mat, 10 blank disks and disk wallet

## MICROSMART SOUND & VISION

**A500 PACK £399**

#### Including:

Amiga A500 512K keyboard with 1 Megabyte disk drive. Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV. Deluxe Paint II graphics package. Fantavision animation package. Sound Express - state of the art stereo sampling, includes free software and hardware. Shadow of Beast II - horizontal scrolling games software. Back to the Future - film action software. Nightbreed - state of the art graphical arcade action. Days of Thunder - serious fast action games software. Free joystick mouse mat, and 10 blank disks. Amiga Basic, Amiga extras, Workbench 1.3, plus Amiga Step By Step tutorial. All leads and manuals plus mouse and mains plug. Plus 5 FREE games.



## HALF MEGS + DRIVES

**HALF MEGS: £34.99**

Quality four chip Ram board with complete utility disk support with software, on/off switch.



**AMIGA + ST DRIVES: £59.99**

A powerful 880K formatted drive with an external on/off switch, anti clicking and daisy chain facility



## MONITORS £259

4096 coloured stereo monitor with first class reproduction including leads for ST & Amiga



## MICE

**NAKSHA MOUSE: £26**

Quality microswitched, accurate Amiga, ST or Amstrad PC Mouse



**CONTRIVER MOUSE: £18**

The perfect direct replacement mouse for the ST or Amiga

## PRINTERS

**LC10**

The most popular letter quality printer on the market. With all Amiga + ST leads  
Only **£219.00.**

**MICROSMART 24 HR HOTLINE 0908 564369**

TITLE	COMP	PRICE
TOTAL COST £:		

NCE 103

Have you ordered from us before? YES NO

Name .....

Address .....

Tel No: .....

Please send this to **Microsmart**, 125 High St,  
Stony Stratford, Milton Keynes, MK11 1AT



# ◆ FOR SALE

**COMMODORE 64** with disk drive and printer modem, Pascal and Easyscript + extras £350. Tel Bradford (0274) 544928.

**BROTHER** HR5 printer and 3 rolls of thermal paper (Centronics Parallel) £50 + carriage. Tel (0742) 664991.

**SWAP** Nikon EM35MM Camera, Nikon motordrive for best IBM colour monitor, If VGA with card or sell £195 ono. Blackpool (0253) 891517.

**AMSTRAD** CPC 464, colour monitor, £500 worth of games, printer cable, listings book, sound book, joystick £300 ono. (0926) 452156.

**OLIVETTI** 1450 DM printer only £50. Ring Bob on Gosport (0705) 523519. Buyer to collect.

**ATARI** ST games for sale. All original and excellent condition from £3 to £9 each. Please ring (0532) 656048 anytime.

**Z88** Computer, 128K RAM, 128K Eprom, Z-Tape and leads, mains adaptor, printer interface, Z88 mags, boxed as new. Worth around £400. Sell £275. Horley (0293) 820502.

**SPECTRUM** DTP + extra fonts £30, Artist II £7, Pascal CB Tasword £7 each, video face £20 and lots more serious titles. (0772) 424263.

**LYNX** with five games including Gauntlet 3 and Electrocop, boxed, seldom used £180. Tel (0232) 646808.

**PSION** XP and case but not boxed (sorry), manuals, perfect condition £60 - no offers. Phone Ian 081-530 4333.

**YAMAHA** CX5M MSX music computer, large keyboard, £220 of software. Real and steptime sequenceers, voicing, plus more. Excellent condition, £180 ono. (04868) 21905 after 6pm.

**ATARI** Lynx, Caz games, Blue Thunder, Electrocop, Zendercon. All for £150, still boxed. Ring (0452) 307352 ask for Paul.

**MS/DOS** user guide, Quick Ref Guide £20 the pair. (0903) 206739. **STE** under guarantee and boxed, £300 or will exchange for two Amigas, extras available. Can deliver. Phone Scotland (0250) 5108.

**PHILIPS** CM8833 colour monitor £190 or swap for your Atari SM124 mono. Plus £120 phone Egly (0522) 542062.

**SPECTRUM** + Datacorder MF1 Opus Discovery and NY Games £150 or swap for ST compatible colour monitor. Tel (0522) 752879.

**CPC** Disk Pascal MT + £15, Pocket Protekt £10, DevPac 2 £15, Soft 968 £10, P&P inc. Games inc Elite. Tel 051-489 0500.

## Crazy Joe's

**PUBLIC DOMAIN SOFTWARE FOR THE AMIGA**

\* OVER 1,000 P.D. DISKS IN OUR LIBRARY \*

\* PRICES FROM £1.00 PER DISK \*

\* SEND 17p STAMP FOR FREE CATALOGUE DISK \*

**PD GAMES PACK**  
37 TITLES ON  
8 DISKS  
**ONLY £10.00**

**SOUNDTRACKER SPECIAL**  
8 DISK  
STARTER PACK  
**ONLY £10.00**

**HOME BUSINESS PACK**  
8 DISKS FULL  
OF PROGRAMS  
**ONLY £10.00**

**CRAZY JOE'S, DEPT.NCE, 145 EFFINGHAM STREET, ROTHERHAM, S.YORKS. S65 1BL TEL: (0709) 829286**

**SONY** KTX9000UB desktop viewdata terminal. Built in 7" colour monitor and 1200/75 modem. Worth £600+ when new. Works okay, slight fault hence £150. Horley (0293) 820502.

**BBC** Master +80 track DS DD Ref Man 1+2 view manual, via Galore £350 the lot. Tel 0465 4048.

**HAYES** modem 1200 sell for £200. Pace modem sell for £1Gold V4 sell for £100. Tel 081 5194372.

**BBC** Master 128 includes manual and leads. Price £250 ono. Phone (0742) 692574 between 6pm and 7pm.

**AMSTRAD** 6128 manual, Multiface II + tapes, speech synth, music maker, 2 Roms and manual. SAE Brympton Cottage, Brunswich Road, Sussex BN11 3NQ.

**AT LAST** Database for PCW8256/8512 and CPC, complete and original excellent condition £18 ono. David 081-697 3443.

**ATARI** STFM 1 meg, upgrade, 1 meg drive, mouse, joystick, original software £275 ono. Maidstone (0622) 676272 anytime.

**NINTENDO** Deluxe version with all leads, pads and power supply. Also included are two extra games still in box, sell £110. Phone 6pm onwards (0922) 407496.

**FOR SALE** - Vidi ST digitiser, compatible with all ST machines excellent condition, offers? Phone (0642) 584304.

**AMSTRAD** PCW 9512 with daisywheel printer, 2 print wheels, just covers, 8 discs, manual £350 ono. Tel (0992) 27730.

## THE CHIP SHOP

(SEMICON) LTD  
Semiconductor Supplier

**THE 'CHIP' SHOP (SEMICON) LTD. HAVE MOVED**

**UNIT 5  
ROYAL OAK TRADING ESTATE  
COOPER ST.  
OFF HIGHER HILLGATE  
STOCKPORT  
CHESHIRE  
SKI 3QJ**

**VISA/ACCESS HOTLINE 061-476-3070  
FAX 061-476-3114**

**SEIKOSHA** GP1DDA printer for sale 8 months old £30, Atari ST printer lead £2. Phone Mick on (0827) 283732.

**FRACTAL** programs for the PC. Phone (0326) 40973 or write: Higher Trengrove, Constantine, Falmouth, Cornwall TR11 5QR.

**C64** Datacass, joystick, many titles including Elite, Kick Off 2, R-Type and Uridium, £150. Contact Neil after 6pm (0234) 740439.

**SPECTRUM** Multiface, pokes 300+. Send £3 to Mark Nelson, 82 Overthorpe Avenue, Thornhill, Dewsbury, WF12 0DT.

**MEGADRIE** for sale, new packed with 2 pad, 8 games Pal version, unwanted gift with instructions. Sell for £350. Phone 0532 502371.

**BBC** Modem B, colour monitor, twin disc drives, Teletext adaptor, Light Pen, Graphpad, Cassette Recorder, lots of software, serious offers. 90865) 779842.

**COMMODORE** 64, Alines, Labyrinth, Ball Blazer £7 each, Paper clip £15, 50 Atari VCS with Six Carts £69. Tel 081-337 1834.

**AMSTRAD** DMP2000 printer - full working order with ribbon and cable for CPC464 offers. Milton Keynes (0908) 210308.

**CBM** 64 + datarecorder, good condition, comes with over £400 of software, only £150. Phone (0483) 768364.

**AMIGA** originals, 17 in total, includes Midwinter and Flood. Will sell for £10 each. All in good condition call (0254) 580714.

**AMIGA** mags, Amiga User, Feb 88 - May 90. ST/Amiga Format 1-13, Amiga Format 1-16 in Binders, pristine, offers - (0224) 824904.

**KEYBOARD**, Midi and software for Spectrum £20 and post. Currah Microspeech, software £7 - £50 and post. (0298) 26800.

**GENUINE** IBM PCXT with hardcard 30MB 640K EGA graphics monitor, serial and parallel ports DOS 33, good condition £550 ono. (0483) 764770.

**ST** software for sale, STAC, STOS, Chase HQ, Film Director and many more offers. Paula, 3 Moorend Ave, C'wood, Birmingham B37 5SD.

**QL** for sale, software games, printer, lead, Microdrive cartridges £60 o.n.o. Tel (0475) 672884.

**ATARI** ST software for sale, Dragon Ninja, Western Games, Run The Gauntlet, £8 each. Jon, 65 Granby Close, Weymouth, Dorset.

**AMIGA** Amplifier, 45 watts per channel, 4 speaker option, 5 inputs, bass, treble, loudness, high filter switch, tape monitor. £40 ONO. Tel: (0272) 836696 after 6pm.

**AMIGA** games: FOFT, Populous, Midnight Resistance, Kick Off, Bloodwych, Italy. £10 each. Tel: Julian on (0742) 438542.

## KYC DISKS

### ★ DISKS 36p ★

Postage & Packing for 50 disks £2.85

Postage & Packing for 100 disks £3.50

1/2 Meg Amiga A500 at...**£39.99** (Postage & Packing £2.85)

Amiga + ST software on offer

Screen Gems at £359 Disk Drives at £65

Posso Boxes at £15.95

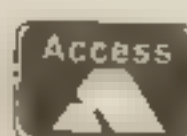
**All prices include VAT**

Open 7 days a week!!! Cheques & Postal Orders accepted

## KYC DISKS

51 Barmouth Road,  
Wandsworth, London, SW18 2DT

Telephone: (081) 870 0469 Mobile: (0860) 763 576







20%

OFF  
RRP

VISA

## PC SOFTWARE

Ability Plus VII .....	£159.20
MS Works VII .....	£116.00
Framework 3 V1.1 .....	£440.00
Lotus Symphony V2.2 .....	£476.00
Norton Utilities Advanced....	£111.20
PC Tools Deluxe V6 .....	£92.00

Many more titles available at discounted prices. We can get virtually any software package discounted so please ask for details. SAE gets full price list.

BIGGER DISCOUNTS FOR BULK ORDERS

Please add £2.50 p+p  
per order plus 15% VAT

PTA Software, 6b Brockley Cross, London  
SE4 1BE Tel: 081-692-2994

## MODEMS! MODEMS! MODEMS!

Large stocks of major brands available at realistic prices  
Technical advice a pleasure!

V22 (1200 baud) Hayes compatible from \$75

V22bis (2400 baud) Hayes compatible from \$90

Fax cards from \$100

All modems tested, guaranteed &amp; BAPT approved

Supply Solutions: 081-566-3639. Phone till 8pm Monday &amp; Tuesday

FOR sale. Einstein 256 with colour monitor and disc drive. Four months old. £200 ono. Mr. P. McIlwee, Ashworth Hospital, Parkbourne, Maghull, Liverpool, L31 1HW.

PC engine for sale, 2 games, 50/60 Hz switch, as new with box £130 ONO. Phone Melo 081-367 4586. Will swap for a megadrive.

C64 with disk drive, printer, tape deck, 2 joysticks & loads of games on tape & disk. £350. Tel: 081-575 3185 after 6.30pm.

PC Engine. Super Grafx with four games for sale at only £200. Please write to: Rashid, 173 Streatham, High Road, London, SW16 6EG.

HITEC quad speed, auto answer/dial, HST chips. Fastest 2400 on the market, download new software now. Amiga Atari. Tel: (0536) 62176.

PRINTER paper, 2000 x 70 GSMX9, 25 x 12 £5, 15 x 11 x 60 GSMX2000 £8. Buyer collects. Tel: (0703) 676949 after 7pm.

COMMODORE 64, 1541 disk drive, built-in disk demo, (fast loader etc) MD5 action replay (cheat etc). 22 Heywood Green, Thornhill, Southampton, SO2 6GA.

MICRODRIVE cartridges, transform box with 20, £20. Wallet with 4, £4. Postage extra. Most used once only. Tel: (0298) 26800.

C64 + 1541 disc drive + MPS803 printer 2CN + £200 approx. Software for sale £275 ono. Tel: (0787) 73432. May split.

SPECTRUM software, cassettes, Paw plus Tasword £10. Tel: 081-503 1465.

## EXMOOR

The world of the Sparring Buzzard, of the Red Gull, of Lorna Flore and the Exmoor Pony. And now the home of Exmoor Software Public Domain Library for the ST - a library that is different, where it's not the disks that are listed but the individual programs. You choose what you want and we make up the disks accordingly. Send SAE for full details.

EXMOOR SOFTWARE  
Queen Street, Lynton, Devon, EX35 6AQ

Full range of Budget Licenceware also available

## A SMALL SELECTION FROM OUR WAREHOUSE

## SPECTRUM +2 Christmas Pack

Light Gun, 6 Gun Games, 16 Extra FREE Games, Joystick  
RRP £159.95 WAVE Special £140.79 + £5.75 p+p

	RRP	WAVE
CPC6128 MONO	£299.95	£249.00 + £10.35 p+p
COLOUR	£399.95	£339.00 + £10.35 p+p

Includes 17 games worth £150 on disk &amp; FREE Joystick!

Do you want to save money, then send for our Trade Price List. State for which products and enclose 3 22p stamps.  
All prices include VAT. All sales subject to our Trade Terms of Trading.

W.A.V.E. (Trade Dept. NCE 0311)

WALNEY AUDIO VISUAL & ELECTRICAL DISTRIBUTION  
1 Buccleuch Street, Barrow-in-Furness, Cumbria LA14 1SR  
Tel: 0229-870000 (6 lines) Hours: Mon-Fri 10.00-5.00

AMSTRAD 1640 colour display, 20 meg. Mint condition with DMP 3160 printer £650. No offers. Tel: 081-571 4537.

C64 hardware and software for sale. Send a SAE for list. D Marks, 431 Packington Square, Islington, London, N1 7UE.

ATARI 520STFM. Books, magazines and £1000 worth of software £150 the lot. Tel: Romford (0708) 764419.

MEGADRIVE games, Moonwalker, Golden Axe, Thunder Force 3, Super Hang On, Super Shinobi, £25 each. Tel: (0322) 863656.

PC Engine (PAL). Mint condition, boxed as new. AV booster, custom joystick, 13 games! Worth £650 - £300 ono. Tel: 021-743 4863.

ATARI 1040 STE as new. A few games etc. Star LC10 mono printer, boxed £350 ono. May split. Tel Mark on (0423) 870581 or 562498.

FOR sale, Star LC10 printer, 7 months old, hardly used, mint condition, boxed £100. Phone 081-660 5818 evenings.

PSION organiser XP. Boxed with manual. Good working order. 10 months old £70 ono. Tel Leeds (0532) 871971 after 6pm. Buyer must collect.

## COMPUTER REPAIRS

Fixed Super Low Prices/

Inclusive of parts, labour and VAT



FIRST AID  
FOR  
TECHNOLOGY

1 WEEK TURNROUND

## \* AMSTRAD / SINCLAIR AUTHORISED \*

SPECTRUM 48K	£14	C64	£22
SPECTRUM 128	£18	VIC 20, C+4	£22
SPECTRUM +2	£27	1541 DISK DRIVE	£36
C128	£29	C2N TDECK	£19
C16	£18	C64 PSU for sale	£27
Amiga	POA	Atari ST	POA

Please enclose payment with item - 3 month warranty on repair.  
Please enclose advert with repair.

W.T.S. ELECTRONICS LTD

(NCE 1 11 90)

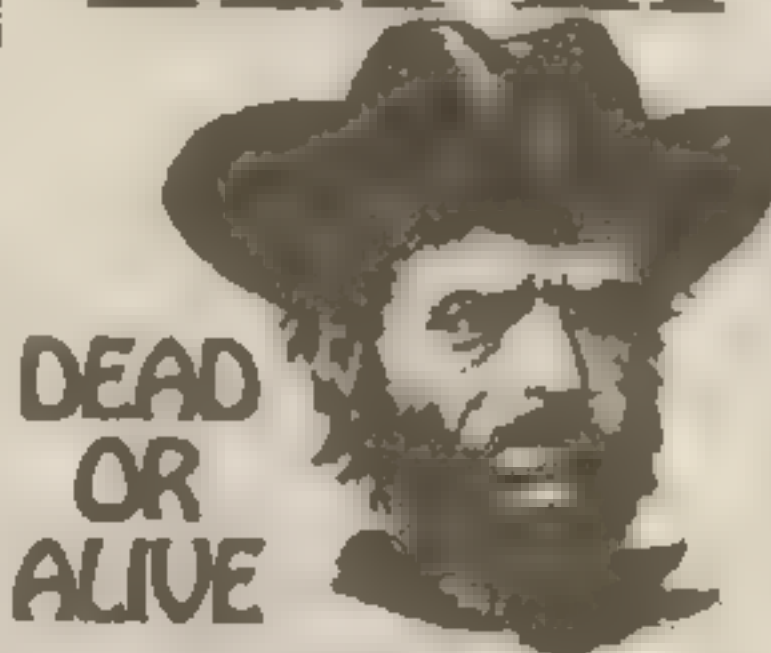
Studio Master House, Chaulend Lane, Luton, Beds. LU4 8EZ

Tel: 0582 491949

(4 lines)

Standard terms of business apply

## WANTED



USE YOUR VOICE  
TO OUTDRAW THE  
GUNFIGHTER

DEAD OR ALIVE CASH PRIZES  
0898 31 35 94

INFODIAL POBox 36 LS1 4TN Call charges 33p Per Min Cheap 44p Per Min All Other Times

BBCB double disk drive, Prestel, Plinth, joystick, Alternator, printer lead, £630 + of software inc: Fleet Street Editor, Supergraph etc. £350 ono. Tel: David on (0204) 591842.

TOSHIBA T1000, 512K RAM, 3.5" Floppy drive, as new c/w case, manuals, software etc. Tel: (0925) 67052 after 4pm.

1 Mega ST, 2nd drive, printer, £1000 worth of software & magazines, joystick. Under guarantee & boxed. £800. Tel: (0773) 747987

COMMODORE MPS 803 printer for C64 £65. CNT6410 modem and software £50. Chester (0244) 851066.

COMMODORE CBM printer model CBM 8024 £40 ono. Phone Romford 743024.

SWAP Chinon CP7M multi-mode SLR camera + zoom lens + dedicated F2 flash for clean printer. Call: 061-653 8535.

FOR sale Star LC10 Printer with lead for Atari St 1 year old £100 contact Ian (0506) 855247.

AMSTRAD CPC 464, Colour Monitor, Joystick, over £250 worth of games, plus Amdrum Digital drum machine and loadsa magazines. Phone Daniel on 061-224 9553.

TOSHIBA HX10 Data Recorder, Joystick, Carts, Manuals, Games £80 ONO, Dragon 32 with internal Software fault £50. Tel (0460) 40269. 6pm.

AMIGA A500 2nd disc drive 1meg boxed and instructions, 3 months guarantee. Good condition £24.00 ono (0903) 761885.



**COMMODORE 8250P DDD, 8032P**  
Printer, mono Monitor, 102 keyboard,  
Cheap for quick sale £95 possible  
deliver. Tel (0293) 32461.

**COMMODORE** colour Monitor 1702  
with Modulator for Amiga A500 VGC.  
£120. Reason for sale - just bought  
Amiga 1084S. Phone Lancs (0744)  
27067.

**STAR LC10** 8 months old boxed with  
manual and paper £100.  
Microviteccub 1431MS Colour  
Monitor £85 (0274) 614209.

**SINCLAIR QL, 640K, twin 5.25" disk**  
drive, mouse, centronics interface,  
supercharger, solution MSDos  
emulator and more £250. Tel: 041-  
339 1357 6pm-8pm. Ask for fiat 5.

**TANDY LT1400** ext 51/4" drive £100  
Atari Port Folio Card drive £35. Tel:  
081-478 7868 after 6pm.

**PC Engine (PAL)** excellent condition  
boxed as new, Av. Booster 13 games  
custom joystick. All popular games  
eg. Gunhead, R-Type, Side Arms.  
Worth £630. £300! 021-743 4863.

**MEGADRIE Pal/Scart Plus 17**  
games, Strider, MoonWalker,  
Fatman, Swap for Neogeo, System  
or sell. Tel: (0527) 65025.

**HI TEC EX2400** Quadspee D-Modem  
MST, Chips fit, the Market £225 ONO  
Ring Duncan (0536) 62176.

**A500, Disc Drive + half meg RAM**  
card, with software £50 phone Jim on  
Temple Combe (0963) 70181.

# SYNCROSOFT

**9-10 Moorland Garden**

**Southall**

**Middlesex UB1 3DY**

**Tel: 081-571-4537**

**AMIGA 5000, 1.3, guaranteed May**  
91. 10 games, 1mb, DPaint 2, 10  
Blank discs, VGC. Boxed as new,  
2nd disk drive. £360. (0224) 824904.

**OLIVETTI M15** portable boxed as  
new, 640K, Twin 3 1/2 floppies,  
Serial/Parallel ports, DOS + WP  
software, Azerty keyboard + extras  
£495 ono. Tel: (0752) 848962.

**AMSTRAD 8512, Loco 2, Locospell,**  
Locofile, Makifile, Flipp82,  
Maskiscam, Kempston mouse,  
Centronics Superface, Mini Office,  
Stop Press, Polyprint, games, all you  
ever need £450. Tel 081-340 3694.

**PC Joystick & game card** new £20,  
also PC games & utilities all new &  
unused sell from £10. Phone (0860)  
444594.

**PHILIPS CM8833** Stereo colour  
Monitor, hardly used with leads, no  
box £185. (040377) 545 W. Sussex.

**SPECTRUM 128K + 2A, Many**  
games, all worth £450 approx. Will  
sell for £200 ono. Tel: (0639) 896866  
after 6pm.

**STE Sims** to upgrade 520 1040 2-  
sets available £20 each, telephone  
(0202) 420682 after 6pm John or  
exchange disks.

**1/2 Meg internal disk drive** for Atari  
ST. Excellent condition £20 postage  
extra, tel: Gaz on Caterton (0993)  
845859.

**CBM64 Action Replay MKVI,**  
Joysticks, 3 tape decks, £1 software,  
inc. double Dragon, Indiana, Double  
Bill etc. £150 Tel: (0306) 882462.

**BRAND new Digital Storage adaptor**  
Dual-Channel - 35 Mhz - DSA524  
use-on Oscilloscope or computer  
2GHZ-M S R Details 061-633 0824.

## Music Writer™ DEMO TAPE

**£3** Refundable  
against  
purchase

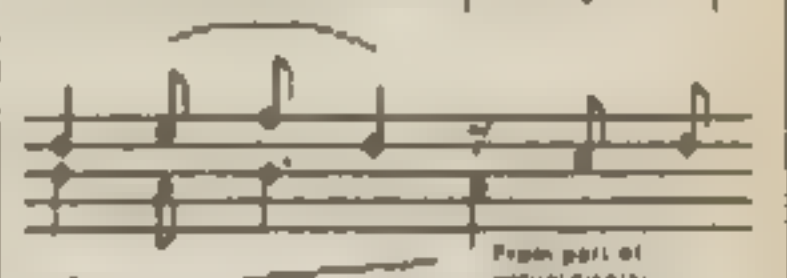
POST  
FREE

G Rowland  
P.O. Box 49  
Dagenham  
RM9 5NY

## Music Writer™

**128/+2/+3 SPECTRUM**  
Three part score writing system

- Comprehensive range of music symbols
- Easy to edit and move bars
- WYSIWYF - an invaluable learning aid
- Loads and runs on all Spectrum 128s
- Manual, ring binder and demo scores
- +3 auto disc transfer



Only  
**£19.95**

G Rowland  
P.O. Box 49  
Dagenham  
RM9 5NY

## DISKS

A limited opportunity to purchase certified  
disks at wholesale prices.

3 1/2" DSDD Disks @ 29p Each  
3 1/2" DSHD Disks @ 59p Each

MINIMUM QUANTITY 50 DISKS

100% error free, sealed & certified

Phone David Jones 081-986 7616

## Windows™ User Group

*Improve your  
View!*

**For all users of  
Microsoft's Windows**

To join...

Tel: 0909 501351

or Fax: 0909 478715

Or write to

**FREEPOST**

**Workshop, S81 7BR**

**LYNX** with California games, Electro  
Cop, PSU and Comlynx cable. All  
boxed £140 phone (0457) 865406.

**AMIGA** Sim city, back to future 2  
night breed days of thunder beast 2  
silent service weird dreams £8 each  
0224824904.

**AMSTRAD CPC 464** Green screen  
and tv modulator, 100 games  
including savage, robocop, super  
wonder boy and many other top titles  
excellent condition boxed £250 or  
nearest offer.

**BBC Master** with W-P roms £275;  
dual drives in plinth £135; Epson SX-  
80 with sheet feeder £95 Pet'bro  
232931.

**ATARI SF354** 1/2 meg disk drive  
boxed as new £35. Contact Nick on  
0268 756395 (Benfleet, Essex).

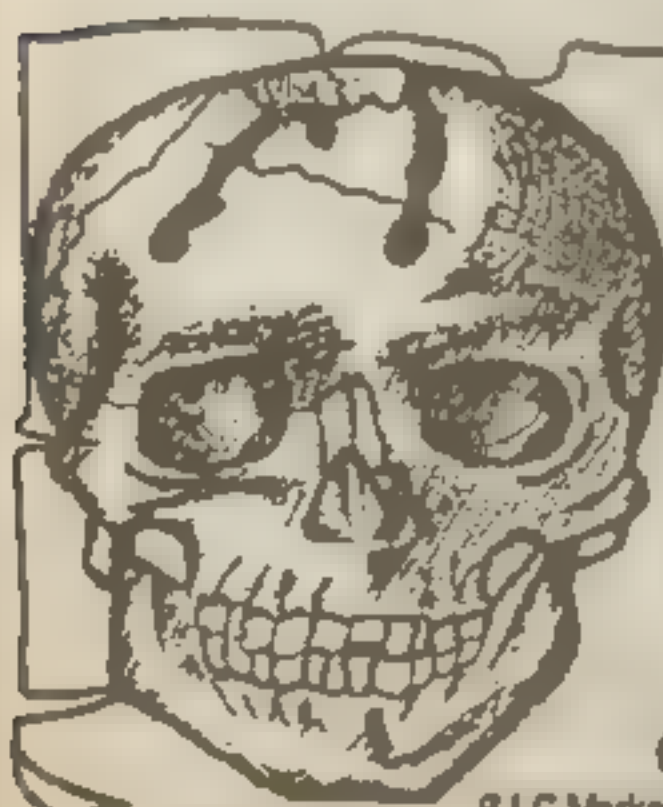
**AMSTRAD 6128** mono monitor £175  
or with over £1000 extras mouse  
modulator 200 games £275 ring  
Ware 467982.

**MIRACOM WS4000** modem model  
V2123 complete with power pack  
and manual. Perfect condition only  
£75. 0323 893294.

**INTEGRATED** logical demo'd +  
utilities disk copier + loads more only  
£5. 41 Warrix Avenue Irvine Ayrshire  
KA1 20DW.

**ATARI 800XL** 1010, 410 software  
books etc £45 Spectrum + with  
accessories software etc £50 C64  
Atari Spectrum Dragon, BBC  
Software (0935) 25974.

**SPEC +3** software for sale Tasword  
+3 and masterfile +3 database ex  
condition £15 each or both £25. Tel  
091 2532455.



## TOMB OF DEATH

Can You Survive In The Dark Labyrinth  
Defeat The Demons, Ghoules & Zombies  
Outwit The Cunning Witches & Achieve  
Riches Beyond Your Wildest Dreams

**0898-100-697**

G.I.C. Marketing, Box 258, Nott 44L, Calls cost 30p/min Cheap Rates 44p other times

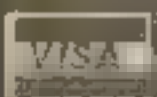


## TELETEXT

A world of information  
at your fingertips

## IS YOUR PC UP TO DATE?

Now you can feed it with the very latest sports results, financial information and World news from Ceefax or Oracle. Save pages, print them and even access Teletext from your own programs. The Microtext Adaptor for the PC is a plug in half card and comes complete with software, everything is supplied, just plug in a TV aerial. At just £169.50 + £3.00 p/p + VAT (= £198.30) it's excellent value for money.



## MICROTEXT



Dept CE, 7 Birdlip Close, Horndean, Hants, PO8 9PW  
Telephone 0705 595694 Fax 0705 593988

**ATARI 520STFM** 360+ games full meg drive mouse joystick ideal for any beginner to 16 bit computing. Excellent condition, well looked after. £370. Sam (0423) 508691.

**SPECTRUM + 2** for sale Joystick and games worth in the region of £600, sell for in the region of £115. Excellent condition. Shane Smith 120 The Quay, Waterford.

**CHECKMATE** A1 500 4 weeks old, two built in drives, 1 meg memory 1.3KS, as new £399 (No offers). Gavin 0227 276491.

**AMSTRAD CPC640** Portable 640K ram, twin drive VGA screen modern, extra green monitor + connection system software + manual. £430 o.n.o. (0382) 21971 (6-9 pm).

**HIGH** speed modern operates at all baud rates up to 19200 hardly used £400 o.n.o. Tel 061797 2755 after 5 pm.

**NEC** 24 pin printer with fully automatic sheet feeder still under warranty extra ribbon and refresh spray. £250 Tel 0706 44552.

**FANCY** two light guns for the price of one? Send cheque for £20.20 Magnum and Cheetah 86 Castland Hill Road Rosyth Fife KY1 12DL. Phone 41144946.

**ST Software** F19 Stealth fighter £18, Bloodwych £10, player manager £9, Mastersound £16, plus others ring 044215102.

ALL COMPUTER HARDWARE AND  
SOFTWARE WANTED FOR CASH  
OR EXCHANGE

NOTHING REFUSED!!

071 727 0424

**SAM COUPE** disk drive latest rom+ Dos, defend game and demo disks, leads, etc. worth £320 will sell for £215 ono call time on 0925 821372.

**ATARI 800XL** Datarecorder, joysticks, paddles, more than 30 games, manuals, programming books, £110 ono Tel Penketh 2526.

**CPC464** converted to 6128 3& 3 5 inch drives, Mem expansion - 64k, rom box, tv modulator. £400 also lots of software call Leicester (0533) 666562. Buyer collects.

**ATARI Mega** Mono monitor tv modulator Atari laser 2 new toners new drum lots of software £900.

**CHEAP** software for CPC and specy, books for various micros S.A.E. 2 Townmead Oakford Devon EX16 9EW.

**FIRST** choice integrated software includes word processor spread sheet etc, unopened still in shrink wrapping £75 Phone 081 9895252.

**SAGE** book-keeper software small business accounting unopened in shrink wrapping £75 Phone 081 9895252.

**M15+** Laptop 20 meg HD 720 KBDD, windows including free PD software + lots of BBS Software Phone Pete (04868) 24240.

**AMIGA 500** 1 meg Fantasy pack 2nd drive loads of software and accessories only 3 months old £500 (0462) 814672 after 6 pm.

**AMSTRAD CPC464** Colour monitor, joystick, manuals, £110 of software, all excellent condition cost £410 sell for £199 (0277) 625253.

**MACINTOSH** high density internal disk drive £40, Claris smart form designer software for Mac £40. 0375 851706.

**MSX TOSHIBA HX-10**, 64K computer, cassette recorder, joystick, mouse + pad, graphic artist cartridge, £120 ono. MSX Games (100 titles) from £1 to £6. Phone or write to Russell Tanner 3 Row Hill, Addlestone, Surrey KT15 1DL. Tel 0932 848499.

**SPECTRUM + 2** £2000 of software 2 joysticks, magazines etc. will sell for £500 ono may split (0255) 860423.

**ST GAMES** £15 Midwinter, £10 Dunmaster & P. Manager £5 Powerdrome and Starwars and Rocketranger and leg sword Phone 0617945801.

**BUY** my 520 ST 1/2 M drive no software and Yamaha YS200 only £500 and get free Akai tape deck worth over £1100. No offers. Phil 082759564.

**AMSTRAD CPC464** colour monitor disk drive £450 software boxed all manuals great condition £250 ono. 040358920.

**EPSON LQ1050** pin letter quality, wide car raige printer. worth £670. Selling for only £490 ono 0291-4244526.

## PD SOFTWARE FOR £2.00

Telephone 071-930 0697

Or write to: LCS Ltd,  
46-47 Pall Mall, London SW1Y 5JG

Let this advertising  
space work for YOU!!  
For Only £61

Contact Tim Partridge  
on  
0225 442244

**TREASURE ISLAND**

1 2 3 4 5 6 7 8 9 10

A B C D E F G H I J

USE YOUR VOICE TO LOCATE THE TREASURE

**0898 313 586**

Infodial PO Box 36 LS1 4TN Call Charges 33P Per min Cheap Rate 44P all other times

**AMSTRAD PCW 8512** computer word processor double disk drive printer software mags £350 Tel (0283) 762433.

**MEGADRIVE** (Pal & Scart output) runs English, Japanese, and American carts mint condition + four games worth £350 Bargain at £220 o.n.o. Ring Mark (0736) 50130 after 5 pm.

**Z BASE** (Z88) £40 or exchange for 128k Ram. St Robatic robot £15 (all plus postage) Tel (08045) 58172.

**C64** Commodore computer with light phaser, also over £200 worth of software Baargain for Xmas £250 o.n.o. Tel. 0883 625539.

**BBCB** computer and tape deck plus joysticks plus various games lots of mags etc. good condition £160 o.n.o. Tel 474468 Evenings only.

**CLASS** of 90's Amiga 500 plus 1/2 meg upgrade with educational software and support, material as new cost £650 now £500 Phone 299-2220.

**UNUSED** Microsoft basic professional development system VY.O 5 1/4 disks £220.

**OVER 30** original Amiga games for sale, including Amos, Retaliator, Beast 2 Tel (0256) 52308 after 6 pm for list.

**XT** Computer, 1 mb 2X360K drives, 102 keyboard, Hercules Mono monitor, Mouse plus software, excellent condition 4 months old £400 (0734) 328462.

**ATARI 520STE** excellent condition plus Outrun, Starwars, Winter Olympiad and 25 + mags discs £270 Tel (051) 3398958.



**AMIGA 500** plus original games including Batman Operation Wolf Pac land plus joystick mouse etc all for £200 call Linden on 081-450-8692 Afternoons.

**AMIGA** software over £1900 original boxed games Corporation, Op Stealth, Kick off 2, Sim City, Man Utd, many more only £250 no offers phone Jason 081-859-3839.

**A2236** Amiga 2000 bridge board 6 month guarantee with maths on board go-processor bargain at only £450 Phone Jason 081-859-3839.

**STAR LC10** colour printer excellent condition hardly used only £120 No offers Phone Jason 081-859-3839.

**SPECTRUM** original 48K model, good condition data recorder, games, revision software and leads £30. Dunstable (0582) 660031.

**PC ENGINE** PAL inc gunhed. Perfect condition only £135 ono. Please ring 0403 68851 after 5 pm. Ask for David.

**SPECTRE** GCR Mac emulator for Atari ST, 128K Roms manual, master disks etc. £200. Mark 08272 357503 daytime 0272 427129 evening.

**AMIGA 500** with joystick and software including Batman, Pacmania, Operation Wolf. All originals for £250. Call Linden on 081 4508592 before 4:30 pm.

**COMMODORE 710** mono, 8250P DD, 8032P printer. 102KB Superbase. H/book. £95 cheap for sale. Buyer collects. 0293 32461.

## Magnetic Media

**AMIGA PUBLIC DOMAIN  
BLANK DISKS FROM 37p EACH INC VAT  
PD:- £1.80 each or £16.50/10 inc VAT**

### A small selection from our vast range

359/360 Star Trek 3	1 Meg
443 Coma Demo	1 Meg
444 Dope Intromaker	0.5 Meg
445 Magnetic Fields Music	0.5 Meg
453 Cryptic UK Demo Comp	0.5 Meg
459 Time Circle Demo	0.5 Meg

**SPECIAL OFFER! ALL 7 DISCS - £11.50**

**VICTORIA ARCADE,  
ALDERGATE, TAMWORTH, STAFFS  
S79 7DL TEL: 0827 59566**

Postage Inc.

## No Hidden Extras! Kensai 80386/25 PC, VGA Colour, 60Mb HD

Includes: 5.25" Floppy, Colour Monitor, Keyboard, MS-DOS 4.0,  
1 Parallel and 1 Serial Port, GW Basic  
Many other systems/configurations available

Call or write today for details!

**£1995**  
+VAT

**Kensai Computers  
2 Lovatt Close  
Edgware  
Middlesex  
HA8 9XG**

Call 081-958-1440 NOW!

## RIVERDENE PDL

### ATARI ST & AMIGA PUBLIC DOMAIN SOFTWARE

1st Class Service  
1st Class Disks  
1st Class User Group

1st Class Postage  
1st Class Selection  
1st Class Help

### FIRST CLASS LIBRARY

### FREE PD CATALOGUE ON DISK



Access state Atari ST or Amiga!

SAE to RIVERDENE PDL



**MODEM MICROLINK V21** 2 3 with ST Kcomii software leads etc £120 ono Tel David 0865 793011, 8 to 5 pm.

**SPECTRUM** games for sale send S.A.E. to 47 Auchingane, The Tryst, Edinburgh. EH10 7HX for list, prices 50p to £3.

**ATARI 65XE** Cass Unit Printer & software manual sect £60 also Electroncass games 12 for £5. Ron (079984) 453.

**AMSTRAD CPC 6128** Colour Monitor second Disc Drive, DMP2000 Printer tape deck and 38 games, 1 year old perfect condition. Phone (0428) 2464.

**M15+** Laptop 20 meg HD 720KDD window incl. free PD software included + lots of free bbs software only £600. Phone Pete on 04868 24240.

**32MB 3RD** Coast hard disk for the ST ICD utilities: £300. Phone Carl 0734 500337 (Reading)

**CBM64/VIC20** graphic printer - hardly used £55. Original BBC games (Saigon, Winter Olympiad etc) £4 each. Phone 081 472 3383 after 4 pm. Ask for Trevor.

**SHINOBI** Arcade machine for sale for home or arcade use £495. Tel 0254 56029.

**AMIGA A500** one meg with Philips monitor, printer and second drive turbo silver, bargain £600. Phone 0813 189290.

**AMIGA A500** second disk drive over £400 worth software and all. Everything intact, under guarantee, ex cond £350 STU 7 Albermarle Rd, Ives, Hunts, PE17 6UN.

**CANNON PW1080A** black and white printer. Used on an Amiga. Good quality and robust. With manual and box. VGC seen working. £105 ONO. Medway 0634 863340.

## Y & J ENTERPRISES

★ **MODEMS** from £50 ★  
★ **PC NETWORKS** from £135 ★  
★ **PC SYSTEMS** from £380 ★  
Call John on 0793 850470

**AMIGA PD** for sale. Lots and cheap. Send S.A.E to: Jason Maachen, 59 Lee Road, Dovercourt, Harwich, Essex. CO12 3SB (no callers).

**SAITEK** Simultano chess computer rated approx. 1800. Plays eight games at once, incorporates LCD chess board. £200 new, will accept £125.

**GAMES FOR** Amstrad cassette. Worth over £370! Good stuff like Rainbow Islands, Strider, Cont. Circus, Rick. Dang, Batman, PRWolf, Indy Jones, NZ. Story, G'N'G' 2! Sell for £175 ono. 081 3608770

**COMMODORE 710** monitor 8250PDD, 8032P printer. Superbase. Handbook, £95 quicksale. 0293 32461.

**ARCHIMEDES 410/1**. Excellent condition, plus software (interdictor). Still in original box with RGB colour monitor £900. Phone 051 342 3415.

**ATARI 520 STFM**, one MB drive, external one MB drive, software - joysticks, loads of mags and cover disks £330. 051 6089761.

**MICRODRIVE** cartridges (45) £1.50p each. ZX printer paper 5 rolls £12. Curruh Speech £10 Last Ninja 2, Drifter 48K Spectrum £6 each. Phone after 6pm. 0272 856574.

**ATARI 520 ST(E)** with Epson printer, games, joysticks, mouse, manuals and books. Bargain at £350. Phone 0761 35180 and ask for James.

**FOUR** track recording studio MT all in one comes complete with 4 microphones, was £400 will accept £300. Contact Paul 0744 21394.

**APPLE 11E** and 80 col card £100. Hard disk and tape streamer £185. Apple 11ev and £25 modem £30. Disk drive £35. Many other bits. Please enquire 0935 72490.

**CVLS** Phone Sheffield 0742 884183 open until 11.00pm

**3.5" DSDD 1.0 meg disks 35 pence each**  
**5.25" DSDD Coloured disks 28 pence each**  
postage & packing £3.00 per order

Cheques/P.O to **CVLS**, 92 Firtree Est, Thurgoland, Sheffield S30 7BG.

## Peripherals, Mail Order Software

Phone or write for details:  
**Rainbird Computer Supplies**  
**41 Rushmere Walk**  
**Leicester Forest East**  
**Leicester LE3 3PE**  
**Tel: 0533-387967**





**IF YOU WANT  
NAKED LADIES  
CUT THROAT PRICES  
COWBOYS  
TRY ELSEWHERE,**

### BUT IF YOU WANT

Good prices, good service and a good product range covering all leading Midi/Music packages, education, art and graphics packages plus business packages please contact us.

### FOOD FOR THOUGHT

DON'T THINK CHEAPEST IS ALWAYS BEST

DON'T BUY GREY IMPORTS

DON'T PAY UNTIL YOU'RE SURE

DO REMEMBER THAT AFTER-SALES SERVICE IS WORTH IT'S WEIGHT IN GOLD

REPAIRS: NO PROBLEM

WE HAVE OUR OWN SERVICE DEPARTMENT

Mon-Thurs 11am-9pm Fri-Sat 11am-7pm

**SGM Electronics, 19 Charles Street, Wigan, Lancs WN1 2BP**

**TEL: (0942) 321435**

**FAX: (0942) 821273**

## SOUTHERN PUBLIC DOMAIN

Amiga P.D. Library open Mon-Sat 9am-5pm

Southern P.D. presents its P.D. madness

All disks are now only 99p + 60p P&P

Buy 10 or more disks and get 5 blank disks FREE

A005 Puggs Ill Space  
A009 Predators Megademo. (2 disks)  
A013 Kefrens Megademo 8. (2 disks)  
A012 Alcatraz Megademo 4. (3 disks)  
A015 Star Trek Game 1. (2 disks 1 Meg)  
A023 Vangelis Demo (1 Meg)  
A024 Digital Concert 2  
A038 Digital Concert 3  
A039 Digital Concert 4  
A078 Budbrain Megademo (2 disks)  
A080 RSI Megademo (2 disks)  
A117 Shadow of the Beast Demo  
A119 Turtlemania By Red Devil  
A090 Link First Megademo  
A070 RAF Megademo (2 disks)

A048 Avenger Megademo  
A046 BAD (M Jackson)  
A042 Amiga Chart 3  
A061 THH Demo  
A053 Crusader Bacteria  
A058 Crusader Audio X  
A059 Vision Megademo IV  
A082 Rebels Megademo  
A083 Space Ace Demo  
A081 Amazing Music 1  
A112 Madonna: Spanky  
A116 Uedit (W/Processor)  
A109 Kefrens Jukebox  
A073 Darkstar Utility 3  
A110 Amiga Chart 5

Catalogue on disk 99p. Blank disks 60p each or 10 for £5.00

All P.D. disks are now only 99p each + 60p P&P

Please make cheque/postal order payable to: SOUTHERN COMPUTERS  
31 Hanson Road, Newhaven, East Sussex, BN9 9EQ.

Please send a stamped addressed envelope, 9x4 for a free catalogue

**ATARI STFM520**, plus games worth £700: £290. Epson 24-PIN LQ500: £170. SM124 mono monitor: £70. Original packaging, excellent condition. Phone Carl 0734 500337 (Reading).

**ST GAMES** for sale. Old and new games include Populous, Starglider 2 etc. Phone for prices or I will swap for Lattice CV5. Phone Stuart 0737 554 536.

**ATARI 520STE +** Power pack software immaculate condition and dust cover public domain disks etc. £299 Tel 0532 869425.

**SPECTRUM +2** £2000 of software 2 joysticks magazines etc will sell for £500 ono may split Tel (0255) 860423.

**PC +20 MB HARD DISK** and two printers 12" colour monitor Wordperfect 5 s'sheet and flight sim 4. Free delivery! £800 Tel 0803 299085.

**STAR NL10** printer excellent condition £100. Phone Rory on (0794) 833553 (day) or (0703) 770823 (evenings).

**ATARI MEGA ST4 5M124** mono monitor citizen L5P100 printer 3.5 disk drive plus extras £900 ono. (0952) 813616.

**SPECTRUM** games for sale many old and new titles from 50p - £3 send S.A.E. to T Mitchell 24 Albany Road, Blackburn, Lancs, BB2 6EQ.

**SPECTRUM 128 +3** over £400 worth of software joysticks manuals tape recorder and leads and disks worth over £600. Every thing for £300. Tel 0327 60351.

**ATARI ST Public Domain**-£1 per disk 3 first class stamps to 47 Auchingane, The Tryst, Edinburgh EH10 7HX. Non profit making.

## Steve's Software

**NEW SC\_ASSEMBLER 512K** (For Sam Coupe with extra 256K chip fitted only).

Has all the features of the 256K version, but uses all 512K memory so that three times as much source can be stored (288K), that's almost enough to assemble 64K of object code. Useful source files to get you started. There are 32 Character Editor sets to choose from and a new rewritten manual using desk top publishing written by Carol Brooksbank.

**NEW SC\_ASSEMBLER 256K** (For Sam Coupe 256K only).

This is an improved version, with better keyscanning and other bits and bobs and a choice of 32 Editor Character sets. For those new to my Assembler here is a summary of the features: Powerful, easy to use Editor like no other Spectrum/Sam Coupe Assemblers, 64 and 80 column text. All opcodes recognised, friendly error checking, disassembler. My Assembler uses no ROM at all ensuring compatibility. Both programs come with a FREE utility SC\_SAMSPEC. You can turn your Sam into a Spectrum and all those grey keys etc are scanned and Lprint works to printer, load in Plus D snapshots, switch from Spectrum to Sam and vice versa so you can poke and save and load to disc etc. But you need a copy of the Spectrum 48K ROM (not supplied). All software comes on 3.5" disc which will back up to another disc.

**PRICE:** SC\_ASSEMBLER 256K £10 (FREE Upgrade, send original disc, customer no. & SAE)  
SC\_ASSEMBLER 512K £12.50 (Upgrade, send original disc, customer no. & £2.50)

Overseas please add £1.00. Please make cheques payable to: Mr S.J. Nutting.  
**STEVE'S SOFTWARE, 7 NARROW CLOSE, HISTON, CAMBRIDGE, CB4 4XX.**

**AMSTRAD DMP 3000** printer for sale only £60 ono contact Peter on 0314417952 also artist II (spectrum) £80 ono.

**PC MONO** monitor amber screen £50 PC original software fighter bomber and more. Tel 0504 43564 after 6 pm.

## ◆ Goods wanted

**WANTED** ST happy/discovery cartridge. Good price paid. Ring Simon (0904) 625016.

**WANTED** Amiga 500 package with games and printer, if possible reasonably priced. Tel: (0703) 600560 evenings.

**INSTANT** music (Amiga) by Electronic Arts, virus free, good condition, original with manual, £10. Tel: (0743) 245371.

**WANTED** ROM cart. games MSX format. Generous prices paid for games in good condition. Ask for Dave on (0949) 831206.

**BATTLE** Chess, Kick Off 2, Scrabble, wanted for my Atari ST. Contact J. Sibley, 65 Granby Close, Weymouth, Dorset.

**GAMEBOY** users to swap notes and other related items. David, 4 Hurst Road, Burnham, Slough, SL1 6ND.

**WANTED** Turbo Outrun for Amiga. Will pay up to £10 or swap for Xenon II and Rocket Ranger. Tel: Craig (0522) 753183.

**DOES** anyone have an Amiga Format issue 1 cover disk & an issue 2 mag & disk, they would give or sell to Brad? Phone (0243) 586012 (weekends).

**DOES** anyone in this lifetime possess either Nevada Cobol or Prospero Pascal for the Atari ST? R. Jammison, 12c Loraine Rd, Holloway, London, N7 6EZ.

**NIKON** EM35mm camera, Nikon motordrive, swap for best colour IBM AT monitor VGA and card or EGA only. (0253) 891517.

**WANTED** Amstrad 6128 firmware and hardware manuals. Please phone (0903) 206739.

## Whiterose Computers

**No. 1 in West Yorkshire for Atari ST & Amiga**

Also...A range of PC and PCW systems plus Commodore C64c/Nintendo and Atari VCS(2800) hardware all in stock.

Software for all the above Plus ...Atari XL/XE Cassette/Disk & cartridge/7800 - Spectrum Cassette/Disk - Amstrad CPC Cassette/Disk.

Leisure/Entertainment, Education, Graphical, Business & Music packages **ALL AT DISCOUNT PRICES** 1,000s of tapes and disks in stock!

Monitors, Printers, Disk Drives, RAM upgrades, Cassette Units, Ribbons, Disks, Storage Boxes, Joysticks and Interfaces, Cleaning Kits, Mice(C64 - ST - Amiga - PC Etc.) Plugs, Leads, Stands for printers & monitors also Dust covers Cassettes, Head alignment kits, & lots more!

**Check out our ST PD library - over 220 disks now in!**

Open 6 days a week 10am - 5.30pm Whiterose are two thirds of a mile from J26 on M62 next to the traffic lights/crossing

**Whiterose Computers, Brooklyn Court, Bradford Road, Cleckheaton, West Yorkshire, BD19 4TJ Telephone 0274 851131**

## SPECTRUM USERS LOOK!!

Come and see the Spectrum user group at the ALL FORMATS SHOW on Nov. 4th at the Horticultural Halls, Westminster, London.

On our stand will be:

\* Amazing discounts on serious and games software \* Our PD software library of 400+ programs on tape & disc \* Discount membership of The +3 Users' Group \* Utility software on tape and disc \* Back issues of our monthly magazine \* And much more than we could possibly list here.

OUR STAND IS THE PLACE FOR ALL SPECTRUM USERS TO VISIT.

However, if you cannot visit the show, write to:

**GARNER DESIGNS, 57 Lovers Walk, Dunstable, Beds, LU5 4BG.**

**WANTED** game for C64C Commodore, Mario, Brother and Beach Head 2. Please contact Alan anytime on 081-769 7375.

**VECTREX!** Anything to do with old MB Vectrex system desperately wanted! Software, hardware, anything!! Reasonable prices met, call Stuart in Glasgow 041-639 6320 anytime.

**BROTHER M1009** tractor feed wanted. Tel: Andy (0325) 487095 after 6pm.

**AMIGA A500** with upgrade, mouse, colour monitor, and printer required. Separately or total package, will collect. Ring Whitley Bay 091 2525996.

**WANTED** urgently! Fast Basic for the ST ROM or disk. Must be complete with manuals. Reasonable price paid. Phone Shane on Newmarket (0638) 665194 after 6pm.

**AMIGA PD** utilities etc. wanted for Music-X, Kawai K4 synth + midi. Steve, 30 Waterhead, Varndell St., London, NW1.

**BONDWELL** Model 2 computer wanted for spares or repair. Tel (eve) KC on 051-606 0644.

**WANTED** Public Domain software, music w/p education languages and high quality games. Must be cheap. Send details Paul, 97 Holland Street, Ebbw Vale, Gwent NP3 6HY.







## AMIGA - ATARI ST - C64 - PC

## Pd Essentials

22 Fern Avenue, Mitcham, Surrey, CR4 1LS

We have the most comprehensive pd library in the U.K. You too can become a member by simply sending a cheque or postal order for £1.00 (refunded on first order) and we'll send our full list of software.

Compile your own disk, choosing the programs you want, (max 500k) using our easy read catalogue which states the amount each program takes up on the disk. All disks are £2.50 + 50p P+P and 100% error free guaranteed. (order over 5 disks and we'll pay the postage!)

**AMIGA** 23 pin plugs and sockets £2-30 each. AMIGA track display (shows head location) £45. S. Barr, 16 Ogilvie Road, Stirling, FK8 2HJ.

**520STE** + games £300. Also 400 computer mags for various computers £150 or £400 the lot. Buyer to collect. Phone 0250-5781 after 6pm.

**ATARI 520 STFM** hardly used, 14 months old, external drive £700+ worth software, joysticks, mags and disks £330.

**CBM64** 1541-11 DD mouse, joystick, Simons Basic Geos, lost of games, books, etc. All for £225. Tel: 0532-551208.

**ZX Spectrum +3**, with Datacorder, Multiface 3, 2 joysticks. £300 worth of software. Tel: Andy on 041-441-1961. £200 ono.

**SEGA** Master System + Wonderboy 3 and Phantasy Star, £65. SE London please. Lucien Hoare, Penge (sorry), London. Tel: 081-778-9398.

**PC Engine** Pal inc gunhed, perfect condition, only £135 ono. Please ring 0403 68851 after 5pm, ask for David.

**COLOUR** monitor Phillips CM8833 excellent condition with Amiga lead. Cost £300 sell for £110 ono. 0268-691658.

**DON'T** look elsewhere! Atari 1520 STFM with DS drive, oodles of games, PD, all manuals etc £280. Tim 0223-351138.

**PC1640DD** PSU £300 & Monitor, Sharp PC7100 £300 or swap either for Apricot Xen. Swap Sam Coupe for HD. 0480-75036.

**ATARI 520 STFM**, many disks & magazines, Amstrad Synthesizer, VGC £390, all boxed, buyer must collect though. Tel: Newmarket 0638661377.

**ARCHIMEDES** 310 Colour Monitor, Epson LX800, S/W inc 1st word+, IBM PC. Emulator, games, etc. All for £800 0933-676384.

**TANDY** 200 Portable Computer, 5 built in programs, modem, manuals AC adapter, modem cable, £190 ono. 081-6408967.

**COMMODORE** C64 disk drive, modem, tape deck, joystick, parallel interface £200. Please ring 081-398-5167.

**BBC B**, remote keyboard with built in twin disk drives, lots of software ROMs books etc £200 ono. 061-707-2147.

**GAMEBOY** with Super Marioland & Tetris, headphones & extension cable only a month old. Unwanted gift £80. 0268-691658.

**SPECTRUM +128k**, cassette recorder, joystick and interface, over £450 software and magazines. £120 ono. Tel: Cardiff (0222) 702941 evenings.

**BBC B** with 100k floppy. RAM Expansion Board Wordwise Floppywise Quickmon £200. No offers. Warrington (0925) 831104.

**AMSTRAD** 464, DDdisc drive, TV tuner, colour monitor, loads of games, mags etc. excellent condition £160. Ring Emma on 0665 6036533.

**AMSTRAD** 6128 software all originals, serious and game, inc Devpac 80, "C", Image Sys, Hits 6, Biggles. Call Gary on 0908 220486 (evenings).

**ATARI ST** single sided drive, have upgraded so asking £25 inc P + P. Phone Gary, evenings on MK 0908 220486.

**Modem** 9600 HST, Hayes compatible manual only £400. Phone 0202-872365, ask for Kester after 6pm thanks.

**AMSTRAD PCW 8256** £250 boxed, excellent cond. All manuals included. Tel: 0642 (Cleveland) 317740.

## MDS MARKETING UK LTD.

Complete IBM compatible systems to your spec. Add-on boards, peripherals, monitors and software. Second hand equipment also on offer.

We carry a large stock only some of which will be at the All Formats Computer Fare.

**CALL US ON 081 884 4904**

## A &amp; A SUPPLIES

Wide range of Commodore and Atari products including Amiga Batman/Flight of Fantasy Pack at very competitive prices

Please ring Jason for details

**0908 216312**

14 The Green, Newport Pagnell,  
Bucks MK16 0JW

FAX: 0908 211057

24 Hour credit hotline

0908 216312



from £40.83

We support over 24,000 printer brands, and have a complete range of colour, heat-transfer (for T-Shirt printing), and indelible inks. Colour, multicolour, heat-transfer, and unlinked cartridges & refills supplied - Ask for our free catalogue.

Most ribbon re-inking services use our Macinkers, and over 130,000 have been sold since 1982.

## Never buy another printer ribbon!

Save hundreds of pounds per year and always get a perfect printout, in black or with any of our coloured inks. Universal Electric Macinkers (cartridge or spool) cost £80.00 and will handle multiple printers with add-on kits, and we have dedicated models for certain printers for just £50.00, also, just in, the new MaxiPrint, Manual Universal unit which will handle virtually any cartridge ribbons without add-on kits for £40.83!

## MGA SoftCat

(0797) 226601 Fax: 226721

41 Cinque Ports St., Rye, E. Sussex TN31 7AD

(PRICES EXCLUDE VAT. & p&p extra) E.& OE

**IBM** PC Clone at, 20MB hard disk, 3 1/2 + 5 hi density floppy, UG A colour screen, £750. 0444 400763 (West Sussex).

**CHEAP!** S/S internal drive \$15, Synchro Express V2 £110, Learn Assembler book £8, 30 great games: 3d Pool, Money, etc. Tony 0590 683245.

**SEGA** megadrive (Pal) Plus 10 games, including SMEP, Thunderforce 3, Ghouls N Ghosts, Super Shinobi, all boxed, £360. Tel: (0785) 48940.

**COMMODORE** CNT6410 modem for C64 complete with Prestel/Micronet s/ware Compunet compatible. Only £65 inc postage. Chester 0244 851066.

**BBC** model B, with Wordwise plus all manuals and software £150. Phone 0243-552631.

**BBC/ELECTRON:** original cassette/disk games for sale. Send SAE to: Peter, 68 Donald Drive, Chadwell Heath, Romford, Essex, RM6 5DU.

**AMIGA** A590 20 MB hard disk, £250. 1084 monitor £120, AF880 disk drive £50, Star LC10 colour printer £150, 0224-824904.

**SEGA** Megadrive inc six games (Strider) for sale, Scart version, mint condition £280. Will separate. 021-783-8894.

**ATARI** 3 1/2" external drive (Epson SMD 300) joystick - port powered excellent condition (unused) £70. 031-346-1874.

**QUICK** sale. 1040 STFM, VGC £250. Upgrading to STE. Phone John, Leeds (0532) 602284. Buyer collects.

## SOFTWARE SOURCE CODE TO COPY OR MODIFY!

LOW COST, ROYALTY-FREE,  
RELATIONAL DATABASED  
BUSINESS PROGRAMS &  
PROGRAMMING TOOLS.  
Working Disk & Samples  
only £7.95 (Visa/Access)

## ENTERPRISE II SOFTWARE &amp; TRAINING

Old Coach House, Chedzoy, Somerset TA7 8RB (Tel: 0278 427766)



**AMSTRAD CPC** green monitor, four joysticks, games, one year old worth £800 sell for £420 ono. Ask for Paul or Peter on (0384) 235430.

**PCW 8256/8512** Master Scan and Master Paint, Print Head, Scanner and Graphics software as new £45. Tel (0672) 810157.

**AMSTRAD PCW 8512**, DTP, mini-office, scrabble, lots of books, mags, discs and ribbons £350 ono. Tel (0296) 436172 (Aylesbury).

**AMIGA A590** hard drive, £250, 1084 monitor £120, A500 1.3, 5 months old, 1MB, £200 of software, £350. Call (0224) 824904.

**OVER 40** quality Amiga games for sale. All originals. Total value £1000. Will sell whole lot for just £400 ono. Contact Anthony (0703) 440084 anytime.

**CBM 64** games, Silkworm, Comb at Lynx, Combat School £2.00 each. Cruiser joystick £4.00. Mr Sibley, 65 Granby Close, Weymouth, Dorset DT4 0SR.

**AMSTRAD 8256 PCW** with printer, locoscript etc. £275. Phone (0744) 27067 Lancs.

**FULL** programming development system (consists of Amstrad PC, PDS card, Commodore 64 and disk drive). Phone Craig on (0472) 840271 after 6 pm if interested!

**HEWLETT Packard** Colour Paintjet Printer £600. Pagesetter 2 £50. Digipaint3 £40. Mastersound Digitizer £20. Digiview Gold 4.0 £80. Call (0203) 316420 and ask for Kelvin. NO TIME WASTERIS!!

**CPC Disk software** PAS, Cal MT + £15 Pocket Protext £10 Devpac2 £15 Firmware Soft 968 £10. Tel (051) 489 0500.

**STE Computer**. Seven months old with extras £330. Can deliver Scotland. Tel (0250) 5108.

**FOR sale** 520 STFM 1 meg drive, 2 joysticks, mouse, over 30 top titles worth over £500, also Master Sound package. Sell for £349. Phone Prestbury 829410.

**FOR sale** Amstrad PCW 8256 Sage Modem V21, V23, cables, docs, etc., minus software but ridiculously cheap, only £70 ono. Ring Simon (0904) 625016.

**AMIGA games**: Altered Beast £12, Op. Thunderbolt £12, Chase HQ £12, plus many more for full list phone (0243) 773220.

**AMIGA power supply**, Commocore brand, full working condition £25 including p&p. Phone Barry 0438-365188 after 6pm.

**ATARI 520ST** 1Mb drive, mouse, software, manuals. Unused £280 ono. Tel. 0767-680253 evenings.

**EUROMAX** Racemaker joystick (yoke) £15 or swap for other Amiga items. Tel. 0473-713715 between 6-9pm. Hi Centronics (wrench) (vipet).

**AMIGA ACTION REPLAY** cartridge, new, boxed, £45. Freezes monitor etc. First cheque gets cartridge, late ones returned. Send to J. Smith, 45 Maplecroft Crescent, Sheffield, S9 1DN.

**COMMODORE 8023P** printer with manual. £135 ono. Tel. 021-358 5418 after 6.30pm weekdays.

**LOOK** - Zenith PC + NEC Spinwriter and Mannesmann MT86. Updating system, need space. Offers! Del. poss. for some areas. Tel. Dave on (0734) 871054.

**TURN** your Acornmaster 128 into an IBM compatible 512 board with Dos, Gem and mouse £120 ono. Tel. (061) 486 9457 as new.

**COPPER** circuit board single sided, new 16" x 4" x 1/16" thick £40 for 100. Phone (0744) 27067 Lancs.

**COMMODORE 64**, datasette, blank tapes, two backup cartridges, 74 original games, books, manual, desk and joystick. Worth £750+. For sale £150 ono. Nik (0582) 596025.

**HOME BREW** software for the CPC's. Games, utilities, educational programs - cheap and disk or tape write to: A Sill, 19 Sherwood Drive, Skellow, Doncaster, South Yorkshire.

**PC ENGINE** with latest PAL x2 adaptor plus three games for £95 incl. p&p. Phone 0222-487794. Ahmed, 32 Boverton Street, Roath, Cardiff, S Wales, CF2 5ES any time. Hurry!

**MASTER 512K** co-pro with twin drives and amber monitor, music 5000 synthesizer plus books and software. Offers contact: Miles, Alwyn Cottage, Highfield Road, Bream, Glos.

**AMIGA B2000** brand new, 20Mb PC/Amiga hard drive, PC/XT bridgeboard, 5.25" drive, boxed with manuals, installation disks etc. £850 ono. Tel. 0243-774767 after 6pm.

**CASIO FP-40** printer/cassette/interface for Casio Pocket Computers. 40/80 colum. Dot Matrix. Excellent condition £40 ono. Tel (021) 358 6688.

**MICRO** Vitec RGB colour monitor. Designed for use with BBC Micro, teletext or similar systems. Excellent condition £150 ono. Tel (021) 358 6688.

**ATARI 520 STE**, 1meg memory £100 of software, all boxed and as new £299 or swap Amiga. Tel (0630) 58329.

**EPSON LQ1000** 24 pin printer, slight fault, hence only £100. Also Ringdale Par/Ser Megabuffer (256K) £70. Phone Steve (0245) 329443 evenings.

**SCI Sys. Turbo** - Kasparov 432 chess, computer scruffy but strong £25. A Jones, 2 Town Mead, Oakford, Devon EX16 9EW or call (03985) 438.

**SPECTRUM+3** software for sale. CP/M Masterfile, utilities and more. All originals with manuals. Various prices. Tel. 0472-887216 for details.

**SINCLAIR 128K +2** joystick, keyboard £50. Light pen + programs and manuals £2. Games ranging from 25p - £1 and magazines 10p each. Perfect condition. Contact Gregory at home on 081-348 3134

**SHARP IQ7000** with language translator and thesaurus/dictionary cards £150. Tel. Steve on 0892-662698 evenings only.

**SPECTRUM+** complete with joystick £30. Alphacom printer c/w 10 rolls £55. Microdrive expansion kit c/w two microdrives £55. 30 microdrive cartridges £50 or all for £170. Tel. 0983-402273

## THE ALL FORMATS COMPUTER FAIR

The 6th All Formats Fair has attracted more exhibitors than ever before. A £3.00 ticket secures you a day of rummaging through nearly every facet of computing, from IBM compatibles to MSX bits.

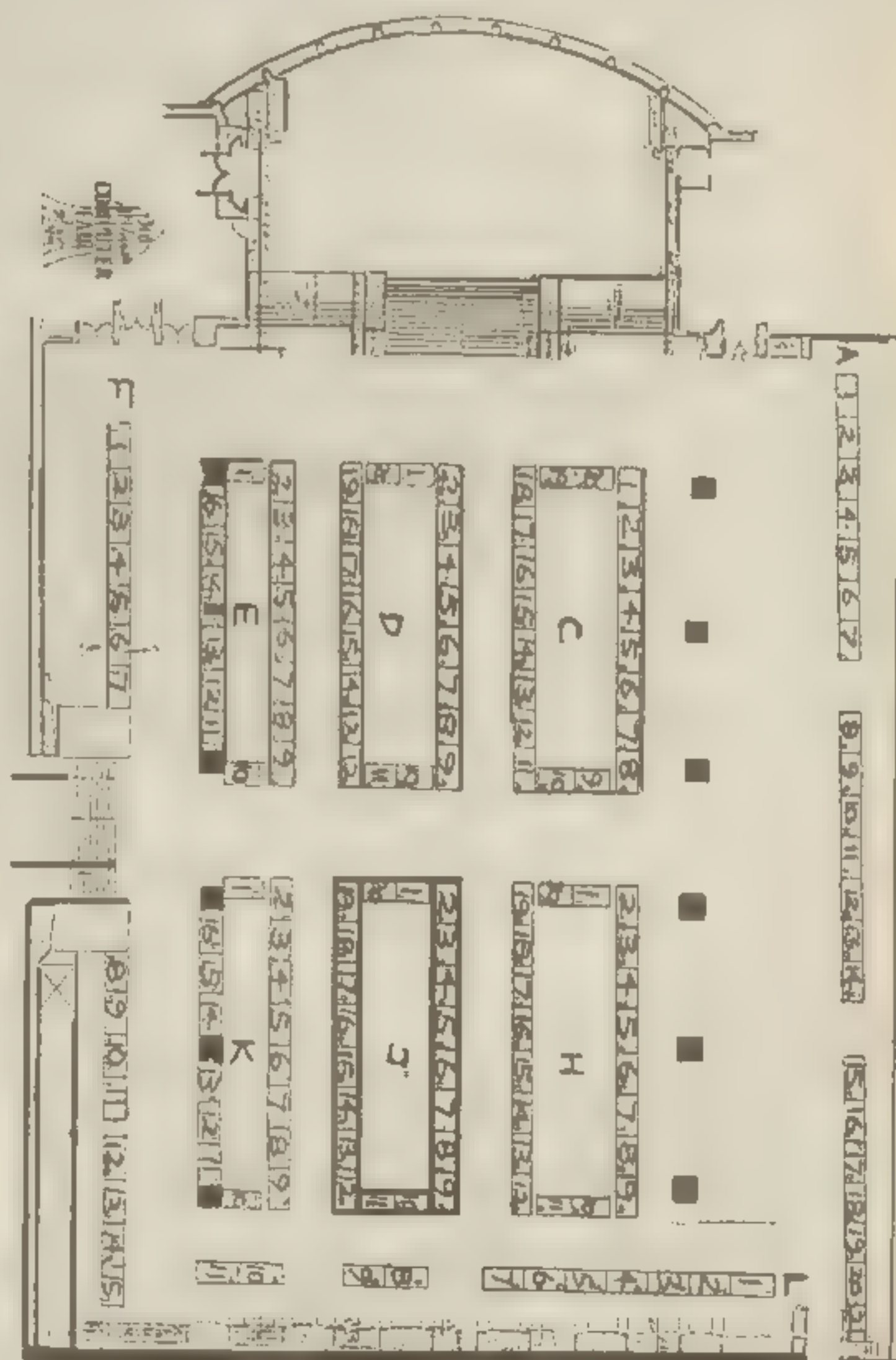
For those of you with a SAM Coupé, there's even a SAM village with products and information from the people who know. Here is a list of the people who will be there, so make sure you are to.

### Exhibitors

16/32 PD Library, A&S Distribution, Advance Comp Serv, Association of Atari Users, Best Byte, Brentwood Computers, British Association of Computer Clubs, Capstan Electronics, Care Electronics, Caspell Computers, CBD Electronics, CGH Services, Circus Microsystems, Comms Plus, Compulink, Computer Manuals, Computing for Charity,

CYB Computers, Datacraft Publications, EEC, Digital Precision, Enterprise Software, Federation of Small Computer Magazines, Format, Garner Designs, GD Disk Supplies, GPS, G Scarr Computers, IBM PC User Group, ICPUG, Main Media, MDS Marketing, Media Value, Micro Interface, Micro Magic, Micromedia, Microtec Entertainment, Miracle Systems, Nu-Tek, Nadisystems, New Computer Express,

Nanosecond Technology, Oasis Computer Systems, PBT Electronics, Personics, Proton Software, Rakewell, RC Simulations, Riverdene PDL, Sector Software, Spectrum Discovery Club, Steve's Software, Team SAM, TF Services, Trident Computer Centre, UK Home Computers, USD, Y&J Enterprises, Z88 User Club, Bargain Software, Enigma Variations.



**Sunday 4th November at the New Halls of the Royal Horticultural Society. The Corner of Graycoat and Elverton Streets, Westminster, London. Opening time 10am. Closing 5pm. Tickets £3.00**



# Evesham Micros

- ALL PRICES INCLUDE VAT & DELIVERY -

Buy with confidence from one of the longest established computer retailers in the country. Our products are efficient, reliable and we won't be disappointed if you choose Evesham Micros.



**AMIGA  
SPECIAL  
DEALS**

Our A500 Packages also include the following:

Amiga 500 512K Screen Gems pack including 'Back to the Future 2', 'Night Breed', 'The Beast 2', 'Deluxe Paint 2', Days of Thunder' and TV modulator ..... **£379.00**  
 Amiga 500 1Mb Screen Gems pack upgraded to a full 1Mb using our 512K RAM/Clock ..... **£409.00**  
 Amiga 500 Screen Gems pack with Drive includes our high quality 3 1/2" External Drive ..... **£430.00**  
 Amiga 500 1Mb Screen Gems pack with Drive features our 512K RAM/Clock Upgrade plus our 2nd 3 1/2" External Drive ..... **£465.00**

Vidi-Amiga video digitiser package ..... £95.00	Philips CM8833 colour monitor inc.cable ..... £249.00
Vidi-Chrome colour accessory for Vidi-Amiga ..... £16.00	Kickstart 1.3 Upgrade pack ..... £29.95
MiniGEN Genlock Adapter ..... £95.00	AMOS Game Creator ..... £37.50
Contriver Hi-Res replacement Mouse package ..... £22.95	Music-X Incredibly powerful music package ..... £129.00
Naksha Hi-Res replacement Mouse package ..... £28.95	Home Accounts (Digital) ..... £18.95
Kraft Trackball (plugs into mouse/joystick port) ..... £44.95	Amiga 500 dust cover ..... £4.95

## CBM A590 HARD DRIVE

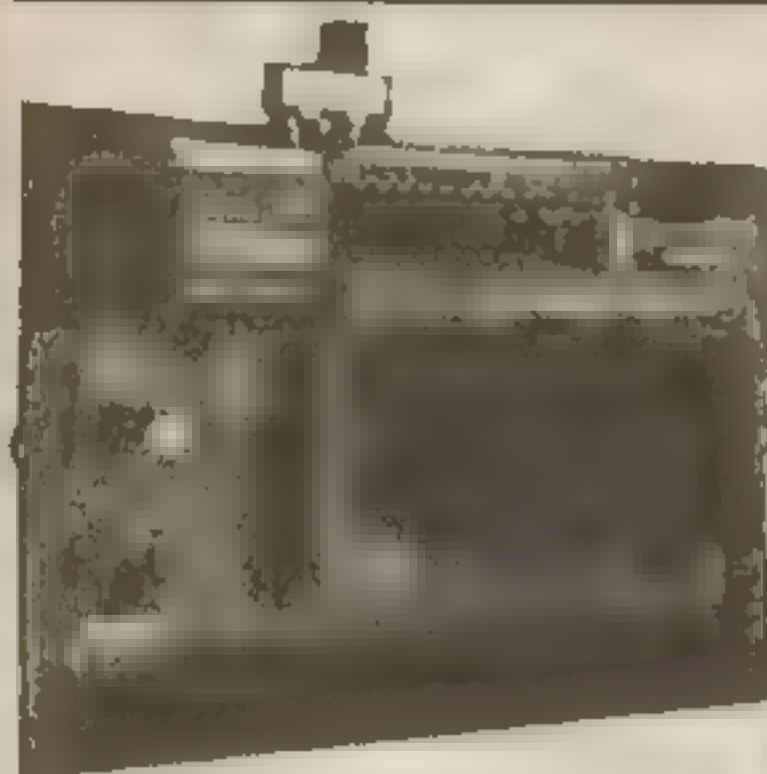
Good quality Commodore 20Mb Hard Disk, including its own PSU and built-in cooling fan. Features sockets for up to 2Mb of RAM expansion (see below). Autoboos when used with Kickstart 1.3.

**A590 (20Mb) only £379.00**  
**40Mb version only £499.00**

A590 512K RAM Upgrade kit ..... £31.95  
 A590 1Mb RAM Upgrade kit ..... £59.95  
 A590 2Mb RAM Upgrade kit ..... £99.95  
 RAM upgrades fitted free when bought with A590.

Genuine replacement Commodore Amiga PSU ..... **£39.95**

## A500 SOLDERLESS RAM UPGRADES



**512K  
MEMORY  
UPGRADE**

**ONLY £37.95**  
*including VAT & delivery*

### 512K RAM/CLOCK EXPANSION FEATURES :

- ☆ Direct replacement for the A501 expansion
- ☆ Convenient On / Off Memory Switch
- ☆ Auto-recharging battery backed Real-time Clock
- ☆ Compact unit size : Ultra-neat design
- ☆ Only 4 low power consumption FASTRAMs

512K RAM expansion without clock only £32.95

## NEW! 1.5MB RAM BOARD

- ☆ Fully populated board increases total RAM to 2MB !
- ☆ Plugs into the trapdoor expansion (as with 512K unit)
- ☆ Auto-recharging Battery Backed Real-Time Clock
- ☆ Socketed FASTRAM ICs for accommodation up to 1.5MB

Unpopulated RAM Expansion Board with Clock ..... £39.95  
 RAM Board with Clock, with 512K FASTRAM installed ..... £64.95  
 RAM Board with Clock, with 1 Mb FASTRAM installed ..... £84.95  
 RAM Board with Clock, with full 1.5Mb FASTRAM installed .... **£99.95**  
 N.B. Requires Kickstart 1.3 to operate - Kickstart 1.3 Upgrade available from us for £29.95

## SPECIAL NEW AMIGA PRODUCTS

**MIDI  
INTERFACE**  
**Only £19.95**

### GET CONNECTED !

Our new fully compatible, high quality MIDI Interface connects directly with the Amiga serial port and provides IN, OUT and THRU ports for good flexibility. Features LED Indicators on each port to assist ease of use and also for diagnostic purposes. Superb compact design.

**'TESSA'  
speaker system**  
**Only £34.95**

### HEAR THAT STEREO !

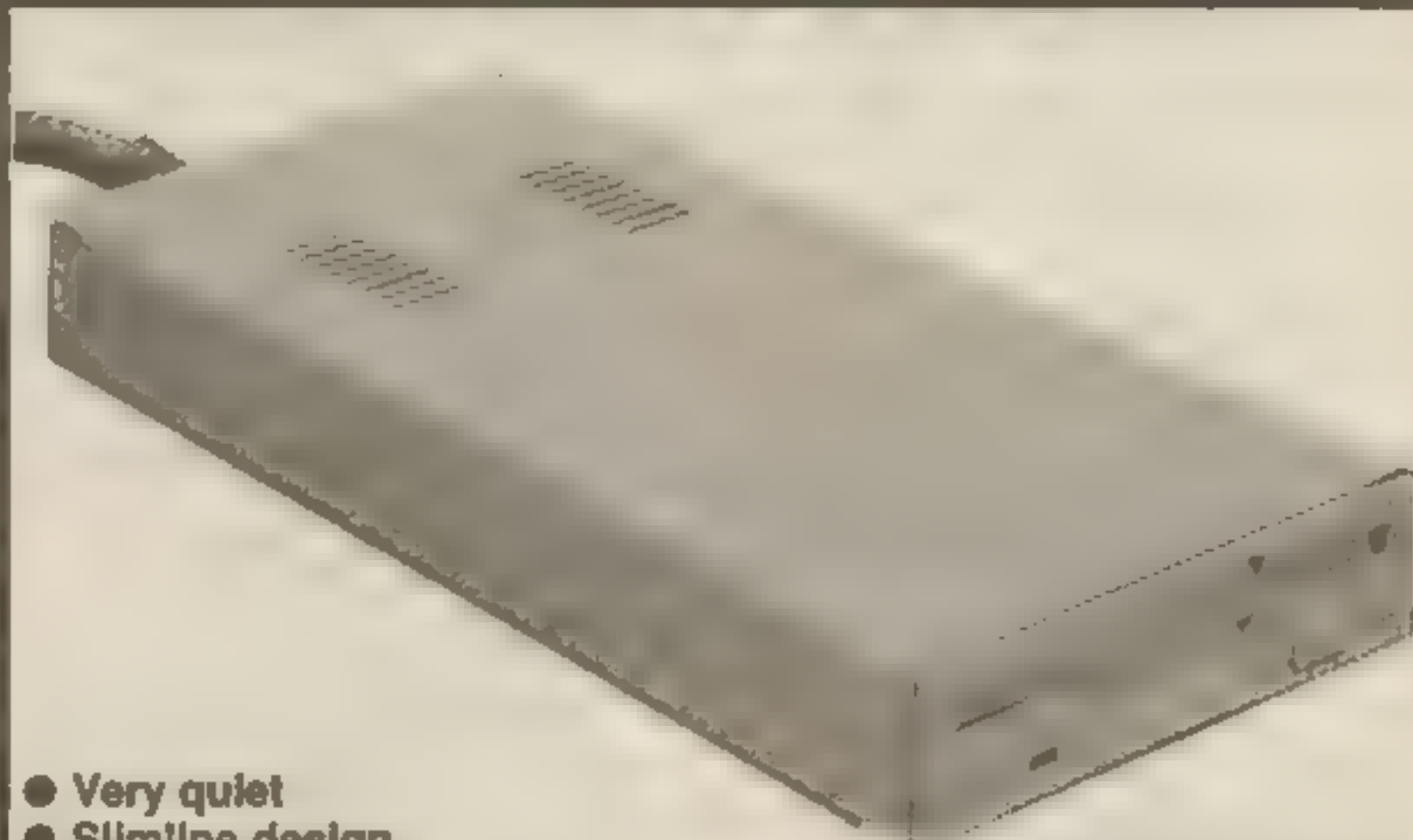
Your Amiga produces excellent quality hi-fi stereo sound. Enjoy high quality, stereo sound reproduction to the full with our great new twin speaker system, TESSA (twin ergonomic stereo speakers, amplified). Incorporates a specially designed, quality 2.5 watt per channel amplifier, including volume control, to obtain the best sound.

**STEREO SOUND  
SAMPLER**  
**Only £29.95**

### S-S-SAMPLE THIS !

Offering full compatibility with almost any Amiga audio digitiser software, our Sound Sampler features excellent circuitry, yielding professional results. The main A/D converter gives a digitising resolution of up to 50KHz, with a fast slew rate. Two phono sockets are provided for stereo line input, plus an option for microphone. Adjustable gain is achieved with built-in control knob. Complete with public domain disk containing sound sampling applications / utilities.

## Amiga & ST 3 1/2" Drives



- Very quiet
- Slimline design
- Cooling Vents
- Sleek, high quality metal casing
- Quality Teac / Citizen mechanism
- On / Off switch on rear of drive
- Throughport connector (Amiga)
- External plug-in PSU (Atari ST)
- Full 1Mb unformatted capacity
- Long reach connection cable

**ATARI ST VERSION :**

**£64.95**

**AMIGA VERSION :**

**£59.95**

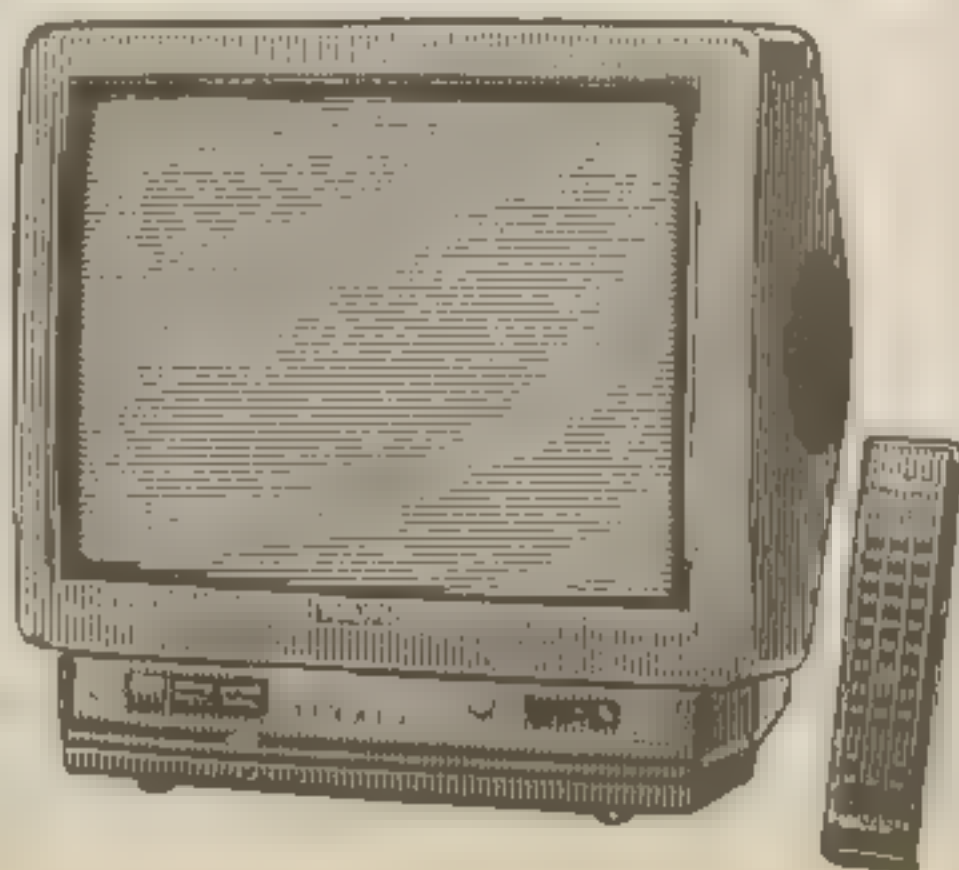
5 1/4" External 40 80 Track Drive also available, only £99.00

## PHILIPS 15" FST TV/Monitor (MODEL 2530)

With its dedicated monitor input, this model combines the advantages of a high quality medium resolution monitor with the convenience of remote control Teletext TV - at an excellent low price !

**£269.00**

includes VAT, delivery and computer connection lead





NEW

# SOLDERLESS MEMORY UPGRADES FOR ANY ST



Upgrade the memory of your ST quickly and easily with our new, fully software compatible RAM upgrade board. Designed for pre-STE machines, the unit accepts SIMMS slot-in memory modules, making RAM fitting simplicity itself. No soldering required! No electronics knowledge needed! Available with or without RAM modules. Allows upgrade in stages of 1Mb, 2.5Mb and 4Mb, as and when necessary. Straightforward installation - full instructions provided.

- ✓ Fits Any pre-STE Machine in Minutes !
- ✓ Uses SIMMS RAM Modules for Effortless Upgradeability
- ✓ Probably the Neatest ST RAM Upgrade available !

RAM Upgrade Kit with board unpopulated ..... £69.95

RAM Upgrade

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

R

Upgrades to 520/1040 Mega ST1 to 4Mb ..... £229.95

N.B. Due to the large variance in design of the Atari ST, there is a small minority of boards in existence which may require a small amount of soldering.

## NEW! PLUG-IN, SOLDERLESS 512K RAM UPGRADE FOR ANY ATARI 520 ST



Now there is a simpler, faster and more effective method of upgrading your humble 520 ST to 1Mb RAM ! Our new plug-in 512K memory upgrade unit offers excellent value for money, requiring no soldering or special technical know-how. (Not suitable for STE machines.)

**ONLY £69.95** including VAT and delivery

# ATARI

All our ST prices include: mouse, joystick, 5 disks of software, Neochrome graphics utility, game and demo.

### 520 STFM DISCOVERY PACK

Good quality, good value package based around the 520STFM computer including 512K RAM, 1Mb Drive and built-in TV modulator. Also supplied is:

STOS Game Creator      Outrun  
Carrier Command      Bomb Jack  
Space Harrier      Neochrome  
First BASIC      Atari ST Tour  
plus 'Discovering your Atari ST' Book

**£259.00**  
Including VAT and delivery

### 1040 STE PROFESSIONAL PACK

Excellent starter package, including the very latest 1040STE machine with 1Mb RAM, 1Mb Drive, plus the following extras:

Kuma Wordprocessor      STAC Adventure Creator  
Kuma Database      Hyper Paint (STE version)  
Kuma Spreadsheet      First BASIC  
Kuma Business Graphics      'Prince' game

**£429.00**  
Including VAT and delivery

### NEW! 520 STE TURBO PACK

Features the latest 520STE with 1Mb drive, joystick, mouse, user guide, 5 disks of public domain software, plus a high quality selection of entertainment and creativity software, including:

Indiana Jones & the Last Crusade      Blood Money  
Impossible Mission II      Super Cycle  
Human Killing Machine      Out Run  
Dragons Breath      Anarchy  
Hyper Paint 2 (STE version)      First BASIC  
Music Maker 2 (STE version)      STOS

**£339.00**  
Inc. VAT & Delivery

520STE RAM upgrade to 1Mb, includes 2 x 256K SIMMS modules ..... £40.00  
520/1040STE RAM upgrade to 2Mb, includes 2 x 1Mb SIMMS modules ..... £119.00  
520/1040STE RAM upgrade to 4Mb, includes 4 x 1Mb SIMMS modules ..... £235.00  
520STFM 1Mb Drive Upgrade Kit with full fitting instructions ..... £54.95  
520STFM 1Mb Memory Upgrade Kit, requires soldering ..... £59.00  
Mega ST1 with monochrome monitor ..... £599.00  
Mega ST2 with monochrome monitor ..... £849.00  
Mega ST4 with monochrome monitor ..... £1099.00  
SM124 monochrome monitor ..... £99.00  
SC1224 colour monitor ..... £279.00  
Phillips CM8833 14" colour monitor (stereo sound) c/w ST cable ..... £249.00  
Vidi-ST 16-tone video frame grabber inc. digitising software ..... £89.00  
NeoDesk V3 Desktop replacement ..... £29.95

## PRINTERS

All prices include VAT, delivery and cable

# star

**EVESHAM MICRO'S SPECIAL OFFER:**  
ALL STAR PRINTERS INCLUDE 12 MONTHS ON-SITE MAINTENANCE!

Star LC10 best-selling 144/38cps printer, 4 NLQ fonts ..... £159.00  
Star LC200 NEW replaces LC10 Colour model, with new features: 180/45cps with bottom feed facility and push/pull tractors ..... £209.00  
Star LC15 wide carriage version of LC10 ..... £329.00  
Star LC24-10 feature-packed multifold 24 pin printer ..... £239.00  
Star LC24-15 wide carriage version of LC24-10 ..... £409.00  
Star LC24-200 NEW updated ver. of LC24-10 with bottom feed facility, push/pull tractors and a print speed increase to 200/87cps ..... £249.00  
Star LC24-200 NEW 7-colour version of LC24-200, excellent value ..... £289.00  
Star FR-10 Professional 9 pin 300/76 cps, 31K buffer, 16 NLQ fonts, EE-PROM configuration memory and 12 months on-site maintenance ..... £399.00  
Star FR-15 9 pin as FR10, wide carriage version ..... £499.00  
Star XB24-10 Professional 24 pin: 27K buffer, 4 SLQ & 25 LQ fonts with EE-PROM configuration memory and 12 months on-site maintenance ..... £499.00  
Star XB24-15 wide carriage version of XB24-10, with 41K buffer ..... £649.00  
Hewlett Packard Deskjet Plus 300dpi Inkjet printer - while stocks last! ..... £399.00  
NEC P2+ budget 24pin, special low price! ..... £239.00  
Panasonic KXP1180 super 9pin with over 3400 typesets, 11" carriage ..... £179.00  
Panasonic KXP1124 good quality 11" multifold 24pin printer ..... £269.00  
Panasonic KXP1624 wide carriage version of KXP1124 ..... £399.00  
Epson LX400 popular 10" 180/25 cps ..... £159.00  
Epson LQ550 good 24pin printer 150/50 cps ..... £349.00

## Western Digital Filecards

Upgrading your PC to hard disk? Look no further, we offer the best prices on top quality filecards, with ultra-competitive speed ratings. Thorough documentation supplied, low power consumption, with free XTree file management software and Speedread. For Amstrad PC 1512/1640/2086 users we supply filecards tested and formatted, with our simple software installation procedure. Probably the best packages available!

**21MB...£225.00    32MB...£239.00    41MB...£279.00**

# ATARI AMSTRAD

Buying a PC? Shopping around for the best deal? Evesham Micros is one of the UK's leading suppliers of Olivetti, Amstrad, Sharp and Atari PC's, offering highly competitive deals at the lowest prices. Contact us now for a quote!

# olivetti SHARP

# Evesham Micros

RETAIL SHOWROOMS

63 Bridge Street  
Evesham  
Worcs WR11 4SF  
☎ 0386-765180  
fax: 0386-49781  
Open Mon-Sat, 9.00 - 5.30

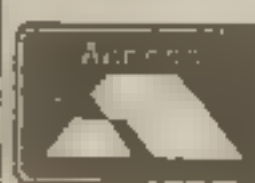
5 Glisson Road  
Cambridge CB1 2HA  
☎ 0223-323898  
fax: 0223-322883  
Open Mon-Sat, 9.30 - 6.00  
Specialist Education Centre

1762 Pershore Road  
Colteridge  
Birmingham B30 3BH  
☎ 021-458 4564  
fax: 021-433 3825  
Open Mon-Sat, 9.00 - 5.30

**ALL PRICES INCLUDE VAT AND DELIVERY**  
Same day despatch whenever possible. Express Courier delivery £5.00 extra.

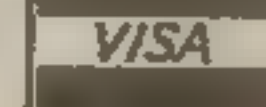
MAIL ORDER DEPARTMENT

Unit 9 St Richards Rd, Evesham, Worcs WR11 6XJ



Call us now on ☎ 0386-765500

8 lines, Open Mon-Sat, 9.00-5.30. Fax: 0386-765354  
Technical support (open Mon-Fri, 9.30-5.30): 0386-40303



Send an Order with Cheque, Postal Order or ACCESS/VISA card details. Allow 3 days personal cheque clearance.

Government, Education & PLC orders welcome. All products covered by 12 Months Warranty. All goods subject to availability, B. & O.E.



# CIRCUIT CITY



**Build a PC, add a chip, change a monitor. It all costs money. This week Keith Pomfret targets the DIY market to see what's there, what problems you could come across and how much you can save.**

**S**aving money by DIY when upgrading or buying a machine is a veritable minefield only attempted by the computer buffs and wirehead literates.

With savings from a couple of pounds on a chip to many hundreds of pounds on a full system, more people are turning to the advertisements that offer self build systems and add-ons for a fraction of the retail cost.

## DIY PC

There are a couple of ways of getting a full component PC cheaply. Many companies advertise full system kits, some offer add ons and peripherals and the discerning buyer can usually upgrade or build a system a lot more cheaply.

While it isn't generally as difficult as those plastic kits that never looked as good as the artwork on the box, it certainly requires a steady hand and a disciplined approach.

Most PCs are fastened together with screws, nuts, bolts and those infuriating springy things that spring off and hide in the carpet until you vacuum.

## FROM SCRATCH

Whatever you buy, make sure that there are comprehensive and concise instructions. If dip switches or ambiguous connectors are involved there should be clear instructions on their use and function. There can be nothing worse than having all the components assembled, but not working because of a switch or connector.

If you're starting from a bare case and building up a board at a time, you can save yourself a lot of time and grief by testing as you build. For example, you

install the power supply on the main board and then test it by powering up. If the power comes on, all's well and good. If it doesn't, or it flicks on then off, there could be a problem. Working this way and testing as you add each component, you can isolate any problem as it occurs.

When you attach components to expansion slots on PCBs, make sure that the edge connectors are clean before inserting the card or component. Many a faulty card has turned out to be a gunged up connector. Attaching motherboards to chassis or cases must be done carefully. The motherboard is a large PCB and you must be careful not to allow it to flex when you're handling it as this can break tracks or dry joints.

When fastening the motherboard to the machine or any other substantial components or boards to the machine, check that the process of fastening things together doesn't cause anything to be held in a permanently bent or twisted aspect.

There should be no bare connectors, wires or clips in a position where they can brush on metal components or cause any circuit to be made that is not intended.

Follow this advice and the instructions and you'll have a cost effective computer in about the time it takes to watch a couple of episodes of it.

## ADDING THE BITS

If you have a non standard PC such as the Amstrad 1512/1640 or 8086/286/386 series, check that the parts, cards or peripherals that you are planning are compatible. The best thing to do before you order any component from any supplier is describe the make, model,

configuration and set up of your PC to the supplier and assert firmly that the products you buy must be compatible fully with your hardware.

Before you rip your beloved machine to bits, check that it is out of guarantee (you may void any warranty) and that you're competent. If the answer to either is no, you can either 1) get a competent dealer to do the work or 2) carry on and sod the consequences, fiscal or safety wise. The latter is a crazy route unless you can afford to burn money, fingers and life.

If you're adding a monitor or drive, check that your machine can drive it. If it can't, you may need a new display card or disk controller. Some of the simplest add-ons are only a couple of minute jobs, but be wary of a large project like replacing the motherboard. It can be undertaken by an intelligent and dextrous person but you may find that the new board may not want to fit or may have its fastenings in the wrong place.

A competent DIYer shouldn't have any problems, but it won't always be simple. Remember, never add anything that hasn't been certified as OK for your machine and configuration. ■

## THE CASE STUDY

I wrote a shopping list for an AT spec machine with a single floppy, but specified that it must be upgradeable to multi-format floppy and hard drive. The machine was to be used for office tasks such as word processing and databases, etc and the ambient lighting conditions demanded a display with VGA high resolution and a low perceived albedo. 1 Mb of RAM was desirable.

Communications software and possible connection to a printer had to be catered for. The occasional game might find its way on to the system, so some sort of games port was needed. The Imaginary publisher gave me an imaginary cheque for £1,000 and I picked up the phone to talk to Christine Barrow at the Chip Shop. My imaginary £1,000 didn't include VAT so I could go to £1,150. I explained my needs and Chris did a swift calculation.

"You can have that for £757.82," she said. Plus VAT made £870ish. "No," she responded. £757.82 included VAT. That left enough cash to buy the wife an imaginary fun fur coat to avoid the "You've been out and spent more cash on a computer" argument.

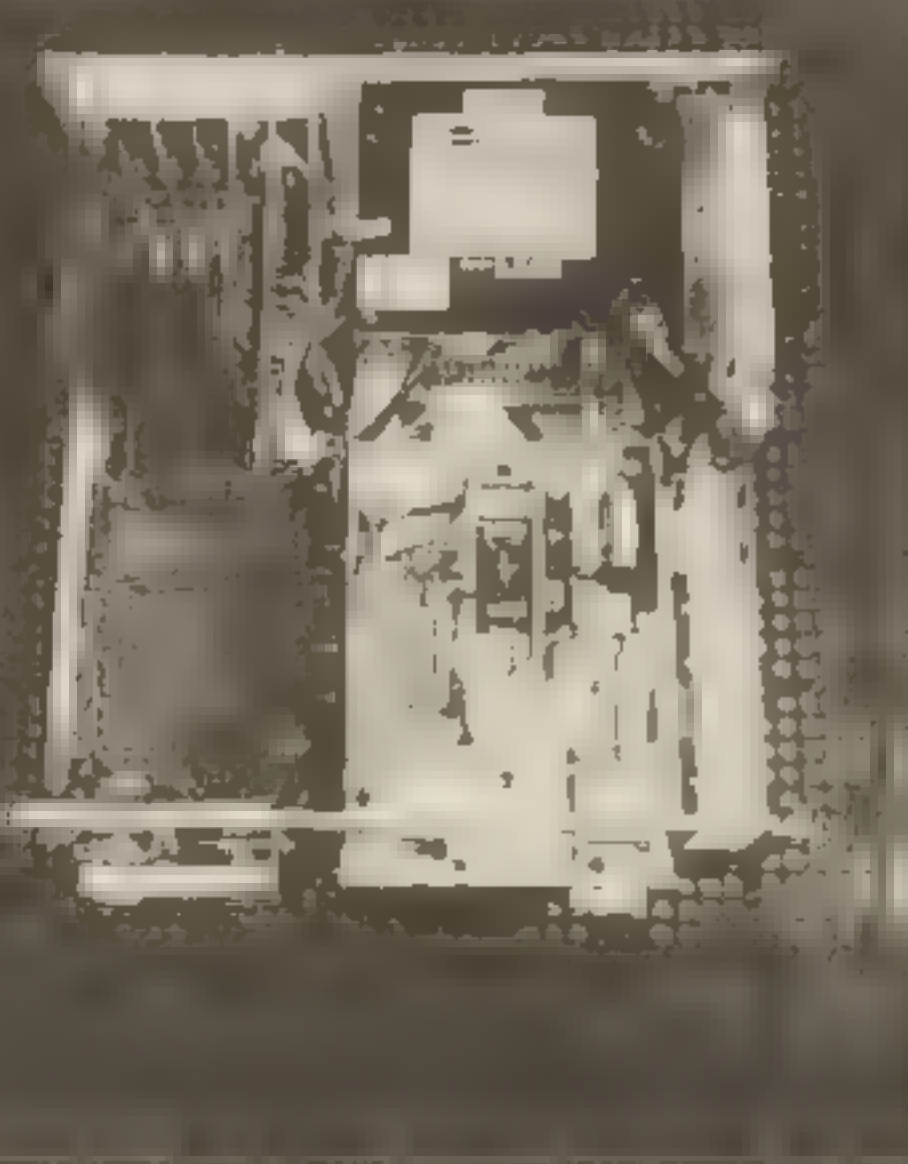
### The system was:

D109 Desk Case  
80286-10/12 main board with 1Mb RAM on board.  
Hard/floppy disk controller (2 hard/2 floppy any size.)  
VGA card  
Multi I/O card (2 serial/ 1 parallel and a games port)  
1.44Mb 3.5 -inch floppy disk  
VGA mono monitor (amber)  
Enhanced 102 UK keyboard  
Total cost including VAT £757.82

As well as offering the parts to construct the PC I was offered constructive advice on the assembly and troubleshooting.

The CHIP SHOP is on 061-476 3070 and supplies everything from a tidy DRAM chip to a full spec office computer system.

## TRANSFORM A PILE OF COMPONENTS INTO A PC



A steady hand and a good blowing wind should see the components in the box become a cost-saving PC.



# **IRLANDEX**

## BASIC MACHINE PRICES

286/12.....£300

386sx.....£438

20 Mhz 386.....£580

25Mhz 386.....£787

**FREE DELIVERY,  
FREE WORD PROCESSOR  
AND  
FREE Supercalc.**

**IRLANDEX  
150 Appleton Park,  
Finaghy, Belfast, BT11.**

**Tel: 0232 600075**

**Fax: 0232 664357**







**AMSTRAD CPC HOME USERS** - Steve Williams, WACCI, 9 South Close, Twickenham TW2 5JE. 081-898 1090

**AMSTRAD 1512/1640/PPC** - PC Independent User Group, The Computer Advice Centre 87 High Street, Tonbridge, Kent TN9 1RX 0732 771 512

**AMSTRAD BUSINESS USERS** - Amstrad Professional User Club, enterprise House PO BOX 10, Roper St, Pallion Ind Estate, Sunderland SR4 6SN. 091-510 8787

**AMSTRAD LOCAL GROUPS** - Amstrad Groups Federation, 4 Sutton Road, Gorton, Manchester M18 7PN

**AMSTRAD PCW** - Bob Ellis 'Rowan' 100 St Peters Close, Moreton-on-Lugg, Hereford HR4 8DW. 0432 761 860

**ARABIC COMPUTING** - Rich Lackey, Arabits, 9 Bellview road, Worthing, West Sussex BN13 1EY  
**ARABIC COMPUTING** - Rich Lackey, Arabits, 9 Bellview road, Worthing, West Sussex BN13 1EY

**ASHTON TATE SOFTWARE** - Silvia Robinson, Baseline, Ashton-Tate, 1 Bath Road, Maidenhead, Berks RG2 3 123. Prestel page 43221

**ATARI PORTFOLIO** - D Gilpin, Atari Portfolio User Group, 84 Cambridge Avenue, Gidea Park, Romford RM2 6QU. 0708 730764

**ATARI ST SOFTWARE** - 16/32 PD library 35 Northcote Road, Strood, Kent ME2 2DH

**ATARI ST** - Paul Glover, The ST Club, 9 Sutton Place, 49 Stoney Street, Nottingham NG1 1LX. 0602 410241.

**BBC MICRO - BEEBUG**, 117 Hatfield Road, St Albans, Herts AL1 4JS. 0727 40303.

**C LANGUAGE** - Martin Houston CUG (UK) Houston Technology Ltd, 14 Arden Oak Rd, Sheldon Birmingham BS26 3LX 021-722 3168

**CAMBRIDGE Z88** - Roy Woodward, Z88 Owners' Club, 68 Wellington St, Long Eaton, Nottingham NG10 4NG

**CD ROM** - UK CD-ROM User Group, High Wings, Salem, Tretors, Abertawe SA6 1XX 0792 844 370

**CHOICE** on-line help. Telephone: 0308 23224 7-9 AM only for now.

**CHURCH ADMINISTRATION** - Rev Stoker Wilson, Church Computer User Gp, St John's Vicarage, Greenside, Ryton, Tyne & Wear NE40 4AA. 091-413 8281

**COBOL LANGUAGE** - Allen Reavie 22 Mourneview St, Portadown, Northern Ireland. BT62 3AW.

**COMPUNET** - Independent Compunet Club, 148 Furzehill road, Boreham Wood Herts. WD6 2DX

**DATAEASE** - Dataease User Group Hi-tech House, 10 Blackfriars St, Norwich NR3 1SF 0603 762 806

**ECONET** - Michael Ryan, Econet User Gp, Balkeerie Cottage, Eassie by Forfar, Angus DD8 1SR

**ENET** (like econet) - T K Boyd, Enet (Amcom) User Gp, Seaford Cottage, Petworth, West Sussex GU28 0NB

**COLECO ADAM** - Keith Mamer, UKAS 33 Homer Road, Croydon CX0 7SB

**COMMODORE ALL MICROS** - Jack Cohen, ICPUg 30 Brancaster Road, Newbury Park, Ilford IG2 7EP 081-346 0050 home: 081 579 1229 day.

**COMMODORE AMIGA** - UK Amiga Users Group, 144 Charles Street, Leicester LE2 0DD .0533 510066 voice; 0533 517615

**CLARGY/MEDICAL EDUCATN** - Mr T Jones, FREE-ED Shareware/PD 85 Stoke road,

Taunton, Somerset TA1 3EL. 0823 321 481

**COMMUNITY COMPUTING** - Community Computing Network 2nd Floor, 35 Pink Lane, Newcastle, NE1 5DW 091-261 0317

**COMPUCORP** - Compucorp University users group c/o Compucorp, Cunningham House, Westfield Lan, Kenton, Middx

**COMPUNET** - Independent Compunet Club, 148 Furzehill road, Boreham Wood Herts. WD6 2DX

**CONFERENCING** - Compulink, suite 2, The Scantuary, 23 Oakhill Grove, Surbiton, Surrey KT6 6DU Voice 081-390 8446 CIX BBS 081-399 5252

**CPM & MSDOS USERS** - Nicholas Higgins CPM & MSDOS Users Group, 42 Birkbeck Road, Wimbeldon, London SW19 9NZ. 081-543 0824

**CRYPTOGRAPHY & CODES** - Mike Barlow, American Cryptogram Association 5052 Chestnut Avenue Pierrefonds, Quebec HBZ 2A8 Canada

**DISABLED** - Jeff Hughes, Special Needs User Gp, 39 Eccleston Gardens, St Helens WA10 3BJ 0744 24608

**DRAGON** - Paul Grade, National Dragon Users Group, 6 Navarino Road, Worthing, Sussex O903 207585.

**ECONET** - Michael Ryan, Econet User Gp, Balkeerie Cottage, Eassie by Forfar, Angus DD8 1SR

**EDUCATION** - Charles Shannon, TECUG, 35 Wellington St, Gravesend, Kent DA12 1JG. 0474 567 931

**EIGHT-BIT BACK-UP** Essex computing's 8-bit user group for all. 25p plus s&e. to: 8-bit back-up, 1 Northme Close, Grays, Essex.

**EINSTEIN** - Graham Beltany, UAEUG 80 Dales Road, Ipswich IP1 4JR

**EMULATE** - For Amiga, Amex. With monthly newsletter. Write to Pat 12b Northbrooks, Hailow, N Essex

**ENTERPRISE** - Tim Box, Independent Enterprise User Group, 50 Holdenhurst Avenue, Finchley, London N12 0HX. 081-346 8032

**EUCLID (3D DESIGN)**. Contact Richard Molyneux, Elements, 42 Keswick Road, Great Bookham, Leatherhead, Surrey KT23 4BH

**FLIGHT SIMULATOR (MSDOS)** - Alan Hawkins, SIMFLY Club 2 Henley Manor Raincliffe Ave, Scarborough YO12 5BU

**FORTH Language** - Douglas Neale, FIG (Forth Interest Group) UK, 58 Woodland Way, Morden, Surrey SM4 4DS.

**FRACTALS/CHAOS THEORY** - Andy Lunness, 69 Bronte Avenue, Bury, Lancs BL9 9RN. 061-764 6469

**GENEALOGISTS** - Computer Group, Society of Genealogists, 14 Charterhouse Buildings, London EC1M 7BA. 071-251 8799.

**GENERAL HOME MICROS** - Steve Winter, Chic Computer Club, PO BOX 121, Gerrards Cross, Bucks SL9 9JP 0753 884473

**GUAGE** - Martin Houston CUG (UK) Houston Technology Ltd, 14 Arden Oak Rd, Sheldon Birmingham BS26 3LX 021-722 3168

**HITACHI MBE 16002 PC** - Bruce Alnge HICUPS 16 Nine Acres Road, Cuxton, Kent ME2 1EL. 0634 715759

**HOUSING ASSOCIATIONS** - Caroline Martes, Micro Users Ltd, Beaver Housing society, 23 Lewisham High Street, London SE13 5AF. 081-318 1126

**HEALTH WORKERS** - Sue Mckendrick, Healthlink, 164 Windsor Rd, Ashton-in-Makerfield, Wigan WN4 9ES. Voice: 0942 712 385

**IBM PC** - The IBM PC User Group PO BOX 360 Harrow HA1 4LQ.081-863 1191 BBS 081-863 6646

**JUPITER ACE** - John Charter, Jupiter Ace Forth User Group, 17 Spring Wood Close, Dunston, Chesterfield S41 8BS. 0246 237555 SAE

**FIND YOUR LOCAL CLUB** - John Dale, British Association of Computer Clubs, Banc y rhydyn, 14 Bron Y Glyn, Bronwydd Arms, Carmarthen SA33 6JB. 0267 230 771

**LOCAL AUTHORITIES** - Local Authority Micro User Gp, John New, Borough Engineer's Dept, Municipal Offices, North Quay, Weymouth, Dorset DT4 6TA. 0305 785101 x272

**LOTUS PRODUCTS** - Lotus User Group, 79-80 Peasod St, Windsor, Berks SL4 1DH. 0753 841686

**LYNX** - R B Jones, Lynx User Group, 39 Ash-ton Close, Needingworth, St Ives, Cambs

**LYNX DISK USER GROUP**. J Koushappas. 172 Pasteur Gdns, London N18. Tel: 081 807 3859

**MEMOTECH** - Phil Eyres - Memotech Owners Club, 23 Denmead Road, Harefield, Southampton SO2 5GS .0703 585106

**MICROSOFT WORD** - Lesley Port, Microsoft Word User Group, Folly House, Madelra Walk, Bachelors Acra, Windsor, Berks SL4 1EU. 0753 831001

**MOTOROLA 68xxx MICROS** - Rick Apple-gate, 68 Microgroup, 8 Great Cob, Springfield, Chelmsford, Essex. BBS 081-316 7402

**MSX SYSTEMS** - Keith Neal, MSX Link, Austerby House, 80 Austerby, Bourne, Lincs PE10 9JL

**MSX SYSTEMS**. Contact Craig Belt, MSX UK, North Lodge, Cairnhill Road, Airdrie, Lanarkshire M16 9RJ.

**MSX USER GROUP**. Contact Lee Simpson, 3 Mayfair Place, Tuxford, Newark, Notts NG22 0JD.

**NASCOM/80-BUS/CPM** - Scorpio Systems, PO BOX 286, AYLESBURY, BUCKS HP22 8PU. 0296 624868

**NEWBRAIN** - Ron Bury, NewBrain Support Grp, 70 Cranberry Lane, Darwen, Lancs BB3 2HL 0254 771891

**NIMBUS/RM AX/VX** - Dr Martin Hatfield NIM-BUG, 13 Belle Vue Ave, Gosforth, Newcastle-upon-Tyne NE3 1AH 091-285 7806

**NORTHSTAR** - Brian Haines, North Star & CP/M Grp, 9a Sharpleshall St, London NW1 8YN.

**PHILOSOPHY APPLE** - G Haines, Chinese Room Club, 43 Cornwallis Gdns, Hastings, East Sussex TN34 1LX. 0424 714 102

**PICK OPERATING SYSTEM** - Hugh Kelt, UK Pick Users Assocn, PO BOX 907, London N10 2SB. 081-462 4666

**PSION ORGANISER**. Mike O'Regan, IPSO, 130 Stapleford Lane, Beeston, Nottingham, NG9 6GB. Telephone 0802 735482

**OS/2** - Karen Burns, OS/2 User Group, Cecily Hill Castle, Cirencester, Glos GL7 2EF 0285 655 888

**OSBORNE/CPM/MSDOS** - Jeremy Browne BOOG, 102a Aldershot Road, Fleet, Hants GU13 9NY. 0252 621745 voice, 626233 BBS

**PC SOFTWARE** - PC Serve, 1147 Green-ford Rd, Greenford, Middx UB6 0DP 081-864 2611, BBS 081-864 2633

**PICK OPERATING SYSTEM** - Hugh Kelt, UK Pick Users Assocn, PO BOX 907, London N10 2SB. 081-462 4666

**PRESTEL** - Andy Leeder, ClubSpot 810, Church Farm, Stratton St Michael,

Norwich, NRQ15 2QB

**PSION ORGANISER** - Mike O'Regan, IPSO, 130 Stapleford Ln, Beeston, Nottingham NG9 6GB. 0802 735482

**RESEARCH MACHINES** - Steve Rochford RM National User Group, George Stephenson High School, Southgate, Killingworth, Newcastle NE12 0SA. 091-268 2002

**REVELATION (PICK)** - Malcolm Frame UK Revelation User Gp, 136 St Albans Road, Watford WD2 4AE. 0923 35515

**R:BASE** - Mrs Tansy Beal, R:Base User Group c/o Room A2044 BBC Woodlands, 80 Woods Lane, London, W12 0TT. 081-576 7187

**SANYO MBC-550** - ■ ■ Syed, Wistaria, 53 Acacia Grove, New Malden, Surrey KT3 3BP. 081-942 9009

**SERVICES USERS** - Sqn Ldr G Howson, Services Personal Computer Association, Stk Eng 15a HQSTC RAF High Wycombe, Bucks

**SCIENTIFIC PC USERS** - Tim Bunning, SPCUG PO BOX 17, Retford, Notts DN22 6BQ 0777 709 009

**SCHNEIDER EURO PC** - Alex Kefford, SEPUG, 11 Crabtree Road, Three Bridges, Crawley, West Sussex RH10 1NF

**SHARP** - Andrew Ferguson, Sharp User Gp, 11 Harcourt Close, Henley on Thames, Oxon RG9 1UZ. 0491 574850

**SIRIUS** - Simon Sheppard, ISSUE PO BOX 222, Brighton BN1 3BR.

**SORD M-23 B Nicholson**, Schlumberger Norge A/S Bjergstedveien, 4007 Stavanger, Norway. 474 657002.

**SMART SYSTEMS USERS** - Francis Barton, smart User Group, Basement Holy Rosary church, Louis Street, Chapelton, Leeds LS7 4BP. 0532 629202

**SUPERPROJECT** - Geoff Groom, 3 Sun-nymeade Ave, Carshalton Beeches, Surrey, SM5 4JA. 081-643 3336

**TAS (DATABASE)** - Neil Hegarty, TASUG C/O Solutions for You, 1st Floor, 2 Lytton Rd, New Barnet, Herts EN5 5BY. 081-441 1133, BBS 081-449 4171

**TANDY/MS-DOS** - Roger Storrs, NATGUG Oakfield Edge, Ram Hill, Coalpit Heath, Bristol BS12 2TY. 0454 772 920

**TEXAS T199/4a** - Peter Walker, T199/4a User Gp UK, 24 Bacons Drive, Cuffley, Potters Bar, Herts EN6 4DU. 0707 873778

**TEXAS T199/4a** - Peter Brooks, International TI User Group 96 Banbury road, Oxford OX2 6JT. 0865 510822

**TRANSPUTER** - Howard Oakley, Transputer User Group, Brooklands Lodge, Park View Close, Wroxall, Ventnor, Isle of Wight

**UNIX USERS** - UKUUG Secretariat Owles Hall, Buntingford, Herts, SG9 9PL. 0763 73039 /73255 (fax)

**VENTURA PUBLISHING** - VPU (Ventura Publisher User grp) Linda Liddell VPU c/o LLA Lound House, Fomcett St Mary, Norfolk, NR16 1JP. 0508 41580

**WINDOWS USER GROUP**. Contact Tim Bunning, Enterprise House, Carlton Road, Worksop, Notts S81 7QF Telephone 0909 501351

**WORDPERFECT** - Michael Norman, Word-perfect User Group (UK) Dove Barn, Manor Farm, Wootton Woodstock, Oxon, OX7 1DX 0993 812 670

**WORDPERFECT** - Dr Ian Barton, A Perfect World, High Rigg, Alma Rd, Tideswell, Der-bys SK17 8LS 0298 871 925



## • BBS

**PECCAN'S BBS.** Up to V22 bis. Very friendly sysop. On the PC-relay (Rime) network. Support for MS-DOS and VCSD P-system. Call 0272 248076.

**MACH II BBS.** One of the best in Glos. Amiga and PC. Plenty of files and on-line 24hr. Do yourf a favour and call: 0242 260685

**BARNEY'S RUBBLE BBS.** Birmingham-based 24hours a day. 300-2400 baud .MNP5 Amiga, IBM PC. Programmers, pen-pal, Comms section. 100Mb downloads plus 30 local and echo conferences. Fidonet (2:253/153). Call 021-441 1801

**INFOCOM UK BBS.** V21/V22/V22bis. Ideal for newcomers, and old-timers in the COMMS world. Call 0895 72021 9PM - 9AM/7 days a week.

**SPHERE BBS.** V21/V22/V23/V22bis/MNP 5.ST and PC areas. Call 0294 221350 8PM - 8AM

D1 For Amiga	071-377 1358	V21/V22/V23
061 Pc Support	061-443 1529	V21/V22/V23
4/rbc	0460 84511	V21
Above Board	0254 582862	Hst
Absolute Zero Obbs	081-741 7233	V21/V22/V23
Advancia Opus Hull	0482 28367	V21/V22/V23
After Hours	0276 52096	V22/V22bis
Alitel	0342 717800	V21/V22/V23
Abr-386	0905 52536	V21/V22/V23
Aj Electronics	0452 509125	V21/V22/V23
Alan Solomon's Bb	0404 724946	V21/V22/V23
Alchemist	0666 504597	
Alma Bbs	0787 277745	
Alternate Reality	0352 856826	V21/V22/V23
Alternative Reality	0959 76695	V21/V22/V23
Alternative Vidata	081-761 6220	V21/V22/V23
Amiga Board	0268 510495	V22/V22bis
Amiga Connection	081-951 9289	V21/V23
Amiga Shack	0737 361178	V21/V22/V23
Amiga South-east	0293 28464	V21/V22/V23
Amilink Bbs	021-778 5888	V21/V22/V23
Amitech Support	0202 294716	V21/V22/V23
Andromeda Galaxy	0243 379430	V21/V22/V23
Apple Crackers	0268 781318	V21/V22/V23
Apricot Tech Support	021-458 2402	V21/V22/V23
021-458 2401		V21/V22/V23
Arcoport	0252 737065	V21/V23
Arena	0625 530663	V21/V22/V23
Argus Project	091-490 0327	V21/V22/V23
Arkhams Bbs	081-652 5128	V21/V22/V23
Aspects	081-792 0280	V21/V22/V23
Atavachron	0480 412884	V23v
Atte	081-308 0466	V22/V22b
Audio Reekie	031-563 9924	V21/V22/V23
Avalon Northeast	091-564 0009	V21/V22/V23
Babbie Bbs	0532 785964	V21/V22/V23
Babbs Tower	0394 276306	V21/V22/V23
Banet Board	081-783 1151	V21/V22/V23
Bar	0904 842560	V21/V23/V23v
Barabas	0708 852525	Hst
Barney's Rubble	021-441 1801	V21/V22/V23
Basingstoke Opus	0256 728331	V21/V22/V23
Bath Bbs	0225 835841/840660	
Bbs09	0705 736025	Hst
Bbz	081-563 3732	V21/V22/V23
Beeb-loc	0472 276476	V23v
Belejeuse 5	0463 231339	
Beyond Belief	0642 787898	V21/V23
Big Bang Burger Bar	081-420 6356	V21/V22/V23
Bike Shop	0705 827764	V22/V22b
Bixbox	0634 200931	V21/V22/V23
Blackpool College	0253 57941	V21/V22/V23
Blindin' Bbs	01 784-0954	V21/V23
Blitter	0292 671638	Hst
Body Matters	071-603 7581	V21/V22/V23
Boggin	0592 483563	V23/V23v
Boog Bb	0252 626233	V21/V22/V23

Boroughbridge Obbs	0423 324532	V21/V22/V23
Bradford Bb	0274 480452	V21/V23/V23v
Braindead Opus	0823 254352	V21/V22/V23
Breakthrough	051-734 5817	V21/V22/V23
Brown Bag	071-404 0897	V21/V22/V23
Brunei Bbs	0272 584352	V21/V22/V23
Buz Board	081-202 9175	V21/V22/V23
Buzby's Grapevine	041-782 2000	Hst
Byte Back!	081-959 8105	V23
Cargo BBS	0420 475462	V21/V22/V23
Campus Ros	0223 357445	V21/V22/V23
Castle Bbs	0276 691872	V21/V22/V23
Cats Board	0628 824852	Hst
Catweazle	081-428 9476	V21/V22/V23
Cd4	0482 655796	V23/V23v
Central Bbs	021-711 1451	V21/V22/V23
Chase Wildcat U.p	0543 871562	V21/V22/V23
Chequers	0622 391308	V21/V23
Chiba City	0501 44262	
Chipboard	0532 320225	V21/V23/V23v
Chronos' Lair	021-744 5561	V21/V22/V23
Cia	081-399 5252	V21/V22/V23
Clapham Junction	0234 64261	V21/V22/V23
Cliff's Corner	0502 518274	V21/V22/V23
Club 1512	081-204 8755	Hst
Co-op Board	081-316 6482	V21/V22/V23
Co-op Board (ors)	081-832 1961	V21/V22/V23
Co-op Board (nics)	0509 826339	V21/V22/V23
Co-op B1Mouth	0202 532701	V22/V22b
Co-op P1Mouth	0705 754651	V21/V23
Codeomatic Bbs	0472 350690	V21/V22/V23
Communitat Demo	081-968 7402	V23v
CompassII	0942 896661	
C'center Opus	071 928 2005	V21/V22/V23
Computers 4 Christ	0926 426294	V21/V22/V23
Connection	071-978 8540	
Connections	081-903 1309	V21/V23/V23v
Connex	071-431 3922	Hst
Consett Forum	0207 506179	Hst
Corby Town Opus	0538 205113	V21/V22/V23
Corwall Gate Opus	0752 848808	V21/V23
Cp/m User Group	0753 888196	V21/V22/V23
Critical Mass Bbs	0727 56939	V23/V23v
Crown Green	071-245 1512	V21/V22/V23
Crystal Tower	081-686 2813	V21/V22/V23
Cure	0904 27885	Hst
Cv Database Bb	0427 610211	V22/V22b
CymruTel	0432 49194	
Cynotel	081-348 2815	V23v
D.I.s	081-434 9907	V21/V22/V23
Dabbs	0846 693067	V21/V22/V23
Dambusters	0203 333195	V21
Dark Crystal	081-207 2969	Hst
Dark Halo	0592 434477	Hst
Dark Side	0446 33729	V21
Darkhaven	0604 413716	V21/V22/V23
Data Network	081-478 5464	V21/V22/V23
Datasw/anderland	081-680 5330	V23
Datascot Opus Bbs	0460 54615	V21/V22/V23
Datatrack Obbs	0636 725180	Hst
Dbase User Group	0532 842213	V21/V22/V23
Doe Board	0296 88165	V21/V22/V23
Dcs	081-879 7573	V21/V22/V23
Deep Thought	0634 583696	Hst/V23
Deeply Wonderful	0455 557261	
Desert	0244 550332	V21/V22/V23
Diamond Opus	0791 86504	Hst/V23
Diggertel #1	0925 411265	V21/V22/V23
Digital Matrix	021-705 5187	V21/V22/V23
Direct-line 1	081-841 1847	V21/V22/V23
Direct-line 2	081-842 2090	V21/V22/V23
Domain Bbs	081-773 2422	V22/V22b
Dragon's Tower	081-202 0709	V21/V22/V23
Dunedin Blackhole	031-669 2974	
Dwarfen Realm	0376 501036	V23v
Ebbs-1	0274 541156	V21/V23/V23v
Eddie's Bbs	0635 71324	V21/V22/V23
Empirical Research	0543 675158	V21/V22/V23
Empylon	0792 580781	V21/V22/V23
End To End	0376 84644	V21/V22/V23
End Zone	0624 752245	V21/V22/V23
Engineers Workbench	051-327 7036	V21/V22/V23
Eureka Gateways	0603 250689	V23/V23v
Eureka II	081-683 0629	V21/V22/V23
Exchange Sw	0757 5051	V21/V22/V23
Eye-2	0525 715789	V21/V22/V23
Fal-Opus	0736 794827	V21/V23
Falcon Bbs	081-527 4165	V21/V22/V23
Family Skeletons	0480 812097	V22b
Fen Tiger	0954 210692	Rb V23v
Fido UK1	0734 713909	V22/V22b
Finn	0273 513872	V23v
Flight Path	081-759 1957	V22/V22b
Focus International	0905 795002	
Focus Tibbs	0303 42690	Hst
Focus UK	0905 774477	V21/V22/V23
Forth View	031-660 3474	V21/V22/V23
Forum-80 Hull	0482 859169	V21
Fox's Den	0689 27085	V21/V22/V23
Free Net One	0767 51972	V21/V22/V23
Freelance Lync	0480 406261	V21/V22/V23
Friday The 13th	0642 224833	V21/V22/V23
Fuzzy Logic	0634 200707	V21/V22/V23
Gabbs	0705 524805	V21/V22/V23
Gallery Obbs	081-847 2795	V21/V22/V23
Game Over	0752 848070	V21/V22/V23
Games Online	0273 699200	
Gaslamp	0706 358331	V21/V22/V23
Gaugonzola Bbs	0453 511112	24hrs/V21/V22/V23
Gnome At Home	081-888 8894	V23v
Gods	081-994 9119	V21/V23

Golly!	0734 320812	V21/V22/V23
Goobiel	0602 706307	V21/V23
Good Life	081-541 0187	Hst
Gopher's Box	061-320 3208	V21/V22/V23
Gourmet	0474 536654	V21/V22/V23
Grainstone	0905 770196	V21/V22/V23
Grenadier	0825 762803	V21/V22/V23
Hacker's Delight	0702 523853	V21/V22/V23
Halfwits Bbs	0272 340310	V22/V22b
Hanniel	0482 465150	V21
Harlequin	061-945 3612	V21/V22/V23
Hastings Bbs	0424 717919	V21/V22/V23
Hawk's Castle	0344 411621	Hst
Hazzard Bb	071-737 0505	V21/V22/V23
Health-data	081-986 4360	V23v
Heartbeat	0734 352032	
Hilary's Board	0277 233468	V21/V23
Hot-air Opus	0579 70347	V21/V22/V23
Humber Bridge	0482 850785	V21/V22/V23
Ichthus (trinity 3)	0734 461466	V21/V22/V23
Index Linked	0227 770403	V21/V22/V23
Intel Ace	0832 73003	V23v
Islington Bbs	071-704 0760	Hst
It Contacts	0482 500286	
Jablon Bb	0254 53552	V21/V23/V23v
Jersey Bbs	0534 37779	V21/V22/V23
Jersey Opus	0534 39389	V21/V22/V23
Jocks Away!	031-225 5368	V21/V22/V23
Jolly Fisherman	0754 67796	V21/V22/V23
Jolly Roger	081-742 1640	V21/V22/V23
Jusavo	0324 32414	V21/V23
Just The Place	0705 258694	Hst
K-wood	0608 83458	Hst
Kashmir's Bbs	0472 347882	V21/V22/V23
Kernow Bb	0209 821670	V21/V22/V23
Key-board	0908 668398	Hst
Kaydala	081-676 0072	V23v
Kidlington Bbs	0865 58703	V21/V22/V23
King Of The Castle	0233 620228	V21/V22/V23
Klippers Opus	0484 665415	V21/V22/V23
Kleopatra's Pyramid	0602 384281	V21/V23/V23v
Knicker Knidge	0844 274068	V21/V22/V23
Kybernia	081-673 7294	V21/V22/V23
Labyrinth	051-724 4458	V21/V23
Lamplight Obbs	0705 811531	V21/V22/V23
Laser Tube	0532 438430	V21/V22/V23
Laur's Of Bb	081-751 6096	Rb V23v
Lighting's Place	0202 485723	V21/V22/V23
Unelight	0580 212043	V23v
Lira Bbs	0522 511277	V21/V22/V23
Liquorice Allsorts	0633 279885	
Liverpool Mailbox	051-425 8324	V21/V22/V23
Liverpool Ros	051-931 4271	V21/V22/V23
Loch Ismond	0389 55762	V22/V22bis
Loft	0442 230461	V21/V22/V23
Log On In Tymedate	0434 606539	V21/V22/V23
London Bb	081-455 6607	V21/V22/V23
London City Map	081-468 7648	V21/V23/V23v
London Connection	081-667 1313	V21/V22/V23
London Embassy	081-366 1778	Hst
London Guest Hse	081-748 0974	Hst/V23
London Mail Centre	081-534 1200	V21/V22/V23
London Metropolis	081-519 1055	V21/V22/V23
London Underground	081-423 2233	V21/V22/V23
Loony Bin	0703 787489	V21/V23
Mabbs	021-444 8972	V21/V22/V23
Maich II Bbs	0242 260 685	V21/V22/V23
Maich Hq (gyn Box)	0602 455444	V21/V22/V23
Maich Metro	081-643 8017	V21/V22/V23
Maich Phoenix	0479 610139	V21/V22/V23
Madness Bbs	0603 300947	V21/V22/V23
Magic Castle Bbs	021-430 3761	V21/V22/V23
Magic Mushroom	0361 83641	V21/V22/V23
Magnum	0274 547006	V21/V22/V23
Magrathia	0376 24402	V23v
Manor	0980 863031	V21/V22/V23
Marchel	081-348 7150	V21/V22/V23
Mairu	051-255 0225	V21/V22/V23
Mbbs Laconfield	0964 550745	V21/V22/V23
Mbbs Milham Ic	081-648 0018	V21/V23
Medway	0634 280031	V21/V22/V23
Mektroic Cretinits	061-773 7739	V21/V22/V23
Mercianet	0203 611943	V23v
Mermaidhead	061-434 7059	V21/V22/V23
Merlin	0443 834179	V21/V22/V23
Migbbs	0443 733343	V21/V23
Micro Live Bb	081-567 6500	V21
Micro Update	081-877 1529	V21/V22/V23

Microdeal	0726 65422	V21/V22/V23
Microlog	0422 71921	V21/V22/V23
Microview!	081-509 0729	V23v
Midget Gam	0748 834836	V21/V23
Midnight Caller	0633 279243	V21/V22/V23
Mind Boggles	0362 762888	V21/V22/V23
Mininet 3	0642 672813	V21/V22/V23
Miracorn Support	0473 232540	Hst
Mirage	081-652 1242	V21/V22/V23
Mirror I	0628 810889	V21/V22/V23
Mirrorworldquest 1	0883 844044	V23
Mission impossible	0602 654329	Hst
Mk Board	0908 311005	V21/V22/V23
Mkbs	0908 504556	V22/V22b
Monkey Tree	0952 677002	V21/V22/V23
Monusci	0293 545665	V21/V22/V23
Motor Exchange	0484 435314	V21/V22/V23
Multi-bbs	041-649 9043	V21/V22/V23
Murdoch S Hangout	021-711 2620	V22/V22b
Murky Caveme	081-426 9388	Hst
Murle	0925 421844	V22bis
My Little Phoney	0885 773277	V21/V22/V23
Nicc Mid-west	0341 250377	V21/V22/V23
Nice Life	071-976 6807	V21/V22/V23
No Escort Required	081-200 3817	Hst
No-1 Bbs	081-958 1589	V21/V22/V23
Norpac	0434 608324	V21/V22/V23
North Wales Bb	0978 88372	V21/V22/V23
North Yorks Obbs	0423 568065	V22/V22b
Northen Lights	0768 773685	V22/V22b
Norwich Onion Bbs	0603 423365	V21/V22/V23
Nova	0455 553371	V21/V22/V23
Nova-net	0274 370760	V22
Odd-ball	081-679 2583	V21/V22/V23
OLEF	1081-882 9808	HST
Open Access	081-427 3974	
Oplix	0482 872294	V21/V22/V23
Organic Garden	081-464 3305	V21/V22/V23
Out Of The Blue	081-668 7687	V21/V22/V23
owl Service	0532 606578	V21/V23
PS & OS Tel	051-236 3105	V21/V22/V23
Pacific Lightning	0732 845338	V22/V22b
Packnet Bbs	081-547 1479	V21/V22/V23
Packnet Place	0484 4235820	V21/V22/V23
Palm Beach	0303 265979	V21/V22/V23
Pazaz Viewdata	0383 620259	V23v
Pc Access	071-608 0081	V21/V22/V23
Pc Forum	0322 335348	V21/V22/V23
Pc Serve Shop	081-884 2633	V21/V22/V23
Pc Service Softnet	0895 420164	V21/V22/V23
Pc Service Storehouse	0494 729094	V21/V22/V23
Pc-vax Opus	081-800-3548	V21/V22/V23
Pctmiga Bbs	0602 735119	V22/V22b
Peaceen West	0895 448996	V23v
Pcam Software Bbs	0272 248076	V21/V22/V23
Penguin	0943 830620	V21/V22/V23
Phantom	0226 340425	V21/V22/V23
Phoanix	0249 817704	Hst
Pision Popper	0424 853361	
Plug-ole	021-472 0256	V21/V22/V23
Plus And Minus	0559 932768	V21/V22/V23
Poacher	0476 62450	V21/V22/V23
Polyenet Bb	071-580 1690	V21/V22/V23
Port Of Call	081-391 5779	V21/V22/V23
Power Play Obbs	0696 423669	V21/V22/V23
Power Tower	0733 890114	V21/V22/V23
Prestonet	0572 612482	V23v
Project Bbs	0384 401770	V21/V22/V23
Prometheus	081-300 7177	V23v
Proximity	0793 480028	V21/V22/V23
Publishing Shop	091-261 5228	V21/V22/V23
Purely Pc	0232 845942	V21/V22/V23
Pyramid	071-239 0871	V21/V22/V23
Pyrola Mountain	0895 59071	V21/V22/V23
Really Interesting	0582 414991	
Reflex Bbs	0793 685627	V21/V22/V23
Regency Bbs	0542 33050	V21/V22/V23
Remotes/bw	0555 851887	V21/V22/V23
Rivendell	0602 840488	V21/V22/V23
Rm Tech. Support	0865 798431	V21/V22/V23
Road Runner	081-483 4105	V21/V22/V23
Roamer I	0292 45345	Hst
Royalink Uk	0962 868807	V21/V22/V23
SAC Bbs	0242 260685	
		V21/V22/V23/V23b
Sas Bbs	0742 325232	Pb/V21/V22/V23
Satellite Southwest	0382 53118	V21/V22/V23
Salum Bb	0282 23570	
Scabs	0909 479080	V22b





*Oxford*  
ACADEMIC



*Systems*

**Free Mouse with every System**

# A COMPLETE 386 SX SYSTEM WITH COLOUR VGA

386SX COLOUR VGA MONITOR  
40 MEGABYTE HARD DISK  
1 MEGABYTE RAM  
102-KEY KEYBOARD  
1.2 OR 1.44 FLOPPY DRIVE  
2 SERIAL, 1 PARALLEL PORT



**AVAILABLE NOW**

This is an American system switchable between 8-16Mhz. Comes fully configured and desk ready. Fully documented, 2 years all parts and labour warranty. The mother board will take up to 4 Meg of RAM on board with the capacity to take 16Meg on a daughter board. The system is 0 wait state and has 8 slots, 6 being free for expansion. The hard drive is a Western Digital 40 Meg sub 25ms IDE device. The video card is a 16 Bit paradise card 256K populated.

**£999**  
+VAT

**TELEPHONE US NOW FREE ON:**  
**(0993)-778-077**

Four Seasons House, 102B Woodstock Road,  
Witney, Oxon OX8 6DY.

Other products available

XT 10/12 MHz

AT 12/16MHz

386 20/25/33 MHz

486 25 MHz

Prices exclude VAT &  
delivery and are correct  
at time of printing.

Warranty does not cover  
misuse or abuse and  
normal wear and tear on  
components.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TEL \_\_\_\_\_

Are you directly responsible for  
purchasing? ☐ Yes ☐ No

COMPANY \_\_\_\_\_

TITLE \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FAX \_\_\_\_\_

Tick box if you would like a free  
Mouse with your system ☐

Please deliver me / 386SX at £999 + VAT  
with 2nd High Density Floppy  
with extra RAM @ £55 per Meg  
80 Meg HD add £175  
Maths co-processor add £279

Sub total

VAT



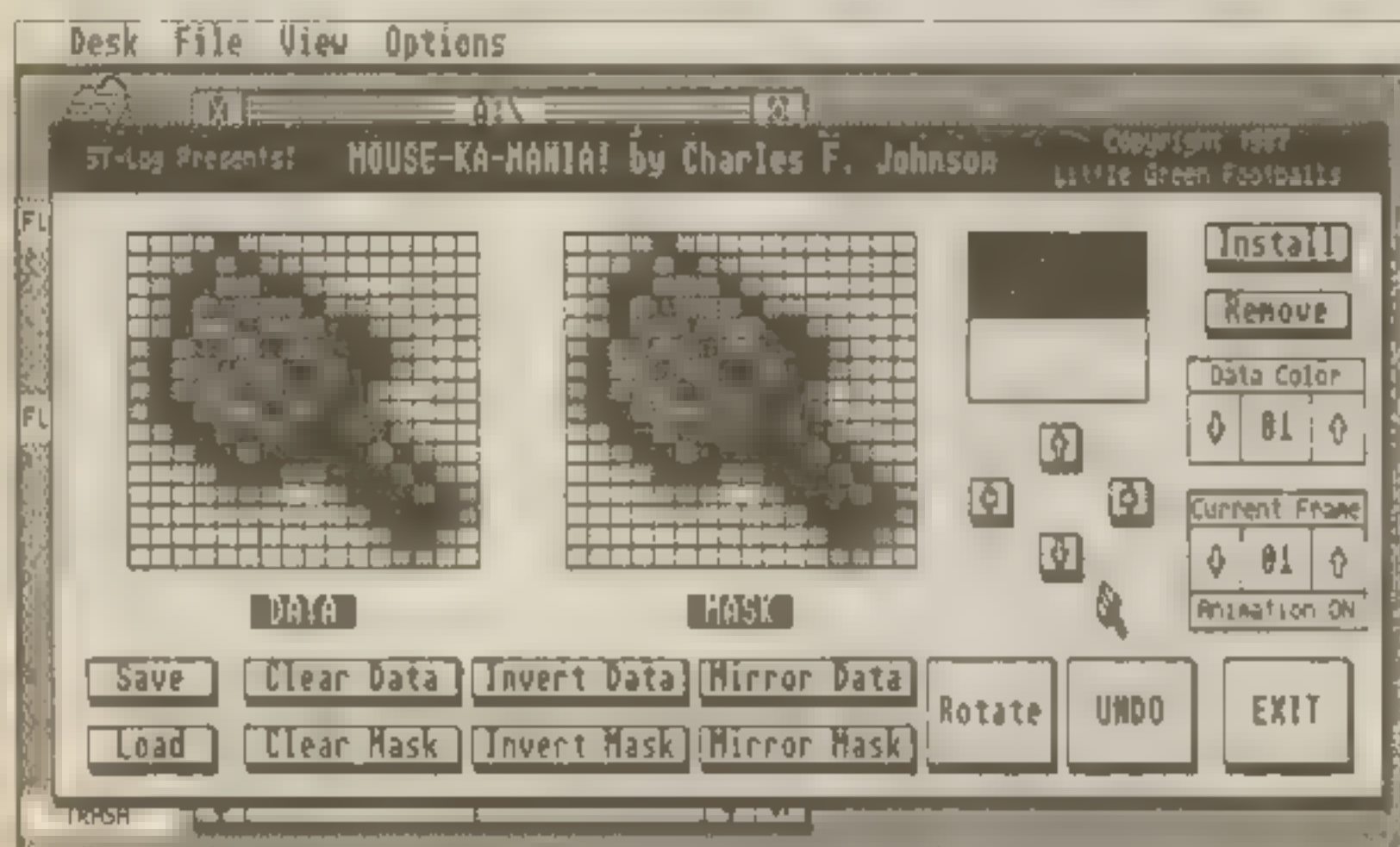


Mouse Pointer • ST • Softville PD  
• ACC69

Fed up with the same boring old mouse pointers? You've got to admit it: those arrow and bee pointers are getting a bit long in the tooth.

Well, now you can use your artistic talents to design your very own personalised pointers. Your art program disk can have a paintbrush to do the pointing and clicking. And you can select files from your games disk with a little space invader. What could be more fun?

Mouse Pointer allows you to create the pointer you've always dreamed of. It runs as a desk accessory, so whenever you feel in the mood for a little redesigning, it's only a click away.



• Redesign those mice with the amazing new mouse pointer.

# THE PD COLUMN

There's a wealth of free software out there which is yours for the price of a disk. Our PD man, Adam Waring, takes a look at what wonderful freebies are on offer this week...

The icons are drawn on a 16 by 16 grid. The individual pixels can be switched on and off to build up the image. A number of options are also available to do clever tricks, such as mirroring and rotating the

sprites and so forth. You can even create animated pointers and jazz them up even further.

Fifty or so pre-defined pointers are already included in the package. They fortunately vary enormously, covering virtually every conceivable subject under the sun, and therefore makes quite a sensible and useful start. So even if your artistic ability is strictly limited you've plenty to choose from to get you going.

Also on the same disk comes a great little program called *Retrace*. This little beauty records all the mouse and keyboard actions, and re-traces them at a time of your choosing. It 'remembers' everything that happens under the GEM environment, and then quite simply plays the actions back to you as though you were doing them all over again. Spooky...

Quickdisk • ST • Softville PD • ACC79

Quickdisk is a compilation of utilities with one very important thing in common: They're all prefixed with the letter Q, just to be clever.

*Qfind* is a program for those of you who know you've got a program lurking somewhere on your disk, but aren't sure exactly where. It works in a similar way to the Find File option found on Apple Macintoshes.

Just type in the name of the program that you want to find, and *Qfind* searches through all the directories and sub-directories, displaying every occurrence of that file. If your memory is so hopeless that you can't even remember the name of the file then all is not lost. Wildcards can be used, so it's an easy matter to look for all files on your disk starting with the letter Q, for instance.

## LOW LOW PRICES ON DATA SUPPLIES & COMPUTERS

### TDK FLOPPY DISKS 5.25" FLOPPY DISKS

5.25" M2D DS-DD (10) .....£4.99  
5.25" M2DD DS-QD (10) .....£6.99  
5.25" M2DH DS-HD (10) .....£7.99  
ALL 5.25" DISKS HAVE REINFORCED HUB-RING  
FOR EXTRA DURABILITY AND LONG LIFE!

### 3.5" FLOPPY DISKS

3.5" MF2D DS-DD (11) .....£7.99  
3.5" MFHD DS-HD (11) .....£14.99  
INCL. 1 FREE Disk (11) on 3.5"

**MICROMAIL TDK SPECIAL OFFER**  
FREE! LOCKABLE DISK STORAGE BOX  
ON ALL ORDERS FOR 6+ BOXES

ALSO BUY 10 BOXES & RECEIVE £10.00 GIFT  
VOUCHER OR ONE FREE BOX OF DISKS

### UNBRANDED DISKS

GUARANTEED 100% ERROR FREE  
3.5" MF2D DS-DD (10) .....£3.99  
3.5" MF2D DS-DD (50) .....£16.00  
3.5" MF2D DS-DD (100) .....£29.00  
5.25" DS-DD (25) .....£6.99  
5.25" DS-DD (50) .....£12.99  
5.25" DS-DD (100) .....£22.99  
FREE DISK STORAGE BOX WITH  
ALL ORDERS OVER £30.00

### SEAGATE HARD DISKS AT LOW LOW PRICES

ST225 5.25" 20mb (65ms).....£135.00  
ST238R 5.25" 32mb (65ms).....£149.00  
ST251 5.25" 40mb (28ms).....£209.00  
ST277R 5.25" 65mb (28ms).....£245.00  
ST4096 5.25" 80mb (28ms).....£399.00  
ST125-0 3.5" 20mb (40ms).....£149.00  
ST138R 3.5" 32mb (40ms).....£169.00  
ST151 3.5" 40mb (28ms).....£219.00  
ST1100 3.5" 88mb (15ms).....£399.00

### CONTROLLER CARDS

ST11R-XT .....£34.00  
ST11M-XT .....£34.00  
ST22R-AT .....£55.00

### APRICOT PC COMPUTERS

#### ULTRA HIGH QUALITY

XEN-S 286 47mb HD 1.44 .....£1333.00  
XEN-S 386 47mb HD 1.44 .....£1399.00  
Qi PC 386SX 47mb HD 1.44 .....£1650.00  
Qi PC 386DX 118mb HD .....£2999.00  
14" VGA White Monitor.....£149.00  
14" VGA Colour Monitor.....£379.00

Please add VAT & Carriage  
£1.50 on orders under £10.00  
£2.50 on orders over £10.00

## MICROMAIL DATA SUPPLIES

Ellwood House, 5 Kesireh Close  
Forest Farm, Leicester Forest East LE3 3NN  
MAIL ORDER TEL 0533 393423

## SHAREWARE IN YORKSHIRE

PACK OR SINGLE PROGRAMS :-  
ALL IBM FORMAT 5¼ OR 3½

PACKS INCLUDE :- AUTOCAD UTILITIES/D BASn / CLIPPER / TURBO PASCAL / TURBO-C QUICK BASIC / TURBO-BASIC / WORDPERFECT-TOOLS / SYMPHONY TOOLS / VENTURA-PUBLISHING / MS-WINDOWS PROGRAMING TOOLS

100 VERY BEST PROGRAM PACKS  
VOL 1 - 2 - 3 20 DISK VOLUMES

GAMES PACKS  
10 DISK PACKS THE BEST  
EGA VGA

DATA COMMS PACKS 30 DISKS

+ MANY MANY MORE

DETAILS SJG SYSTEMS  
109 MILLFIELD LANE, TANG HALL,  
YORK YO3 - 0JP  
0904 - 430320 / 415246



Another way to use the wildcard feature is to find all desk accessories say, by searching for \*.ACC. Hey presto, every file with that extension is shown.

It cuts down hunting for those elusive files dramatically. Normally you'd have to click on every single folder individually until you've found it and even then it's an easy matter to overlook the file you're so desperately searching for. You'd be right back where you started.

The program has far more uses than that though. You can guard all your favorite files from prying eyes by hiding them. Just don't forget what they're called or where they are!

Have you ever felt that your ST's performance isn't ■ it should be? Well don't despair! There exists a program called *Qindex* that will tell you just how healthy your machine is. It performs a series of diagnostic tests on your beloved machine, and gives it to you straight at the end of the therapy session for you to deal with.

Tests are carried out on the speed of the hardware and GEM routines. The results are compared against an index of how the average ST should ■ performing in a perfect world. The ratings are given as a percentage of this projected figure. As you would expect, 100per cent is the norm. Any higher and your ST is obviously souped up in some way. Lower and it's not pulling its weight in the department in question.

*Qlabel* allows you to design up to ten labels at once. No fancy graphics are involved, you can just label your disks quickly and clearly. It should make your disk collection a lot tidier.

The ST is a pretty nifty computer, being sixteen bits 'n' all, but sometimes it could do with an extra kick of speed. *QuickST* does just that. It's like a turbo charger for your ST, and is installed as a desktop accessory.

It works by replacing parts ■ the TOS operating system. Much of TOS is written in C, a compiled language. Unfortunately, although C is fast, it isn't a patch on pure machine code.

*QuickST* on the other hand is pure machine code and it goes like the clappers. It doesn't actually do anything different than TOS, it just does it faster. The optimised code is designed ■ speed up scrolling, text output and windows. The version supplied on the disk handles both mono and medium resolution colour machines, but if you pay out the shareware fee (and you should) you get even faster and smaller, custom designed versions for your particular type of display.

*Qview* makes viewing text files a doddle. Although it is always possible to use the 'show' icon when reading .DOC files it's a cumbersome method, as you can only read through it as it comes up on screen. This program lets you scroll through the text in a much easier way.

The cursor keys scroll the information one line at a time. To leisurely flip by a page at a time, it's simply a case of pressing shift simultaneously.

So there you have it. A whole bundle of mega-useful utilities, all beginning with Q. What more could you ask for?

#### Cool Fridge • Amiga • Amiganuts • Disk 765

Upfront is a demo-making group which has recently started producing its wares on the Amiga. If its first effort is anything to go by, then we'll be seeing some really impressive stuff from these guys.

It's a demo in several parts. Each part is very different from the previous one, so in effect you get seven individual programs for the price of one.

The opening screen features that uniquely unreadable scrolly text that we know and love and which makes demos. I (wisely) gave up trying to decipher what it was supposed to be saying, before my headache got any worse. Instead I impatiently launched straight into the first proper part of the program.

It was called *Smooth Plasma*. It consists of a simple white line of text which scrolls un-ostentatiously across the screen. It does nothing fancy like bouncing around and turning itself inside out. Instead it just scrolled smoothly. When the excitement of all this abates, what really knocks your

#### WHERE TO GO

Softville Computer Supplies, Unit 5, Stratfield Park, Elettra Avenue, Waterville, Hants PO7 7XN. Telephone 0705 266509. The Softies supply PD for ST owners all over the globe. Up to nine disks will cost you £2.50 each. Ten or more you'll pay £2 per disk. If your part of the globe is outside the UK then just add 10% to the total price to cover the exorbitant expense of overseas mailing.

Amiganuts United, 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX. Telephone 0703 785680. Nuts about your Amiga? Then call Amiganuts a library that caters for the Amiga, and the Amiga only. Got that everyone? Disks start at a modest £1.50.

socks off is the background. What a background. Sheets of the most amazing colours twist and turn all over the screen. It's almost hypnotizing to watch. I was quite unwilling to turn it off and load something else.

But I did anyway. The other six are all astounding in their own little way, but in my opinion, none are quite as effective as *Smooth Plasma*. I loved it and so will you. ■

## Lorenzo's Domain

### Amiga P.D. & Shareware

#### A SMALL SELECTION FROM A GREAT COLLECTION

##### MUSIC

- 101: Definitive Docklands by H.C.C. Fantastic colour pictures and music
- 104: Lorenzo's musical delight
- 106: Noise Tracker Collection ■ disks
- 109: Flash by Queen (2 disks)
- 111: Rave Demo (1 meg) by H.C.C.
- 114: NEW Music demo by H.C.C. 5 great new tunes with a cool menu screen
- 118: Digital Concert 5 by Flash Productions
- 119: Derek & Clive Live (2 disks). X-rated, hilarious digitised comedy.
- 124: Follow the Sign by Helloween. (2 disks). An amazing sampled song.

##### DEMOS, INTROS & MEGADEMOS

- 209: Scoopex: Mental Hangover
- 214: The Silents Megademo
- 215: The Predator Megademo: (2 disks)
- 218: The Silents: Fantasy: (2 disks) Great pictures
- 221: Popeye meets the Beachboys: It's ravin mad pal!
- 222: BudBrain Mega Demo X (2 disks)
- 228: Robocop demo
- 229: RAF Megademo: (2 disks): Some great animation on this one
- 230: Red Sector Megademo (2 disks): Simply one of the best around.
- 232: Safe Sex Demo. Absolutely hilarious and it isn't even x-rated.
- 237: End ■ the Century: Megademo II

##### GRAPHICS PICCYS AND ANIMATION

- 306: Newtek Demo Reel 3 (1 meg) (2 disks)
- 307: Luxo Teenager animation: (1 meg). A very good animation of a desk lamp.
- 308: Nighbreed Slideshow by H.C.C.: These are the best pics I've seen yet
- 314: Exodus Reel 3D: Full of outstanding pictures drawn with Reel 3D.
- 400: Puggs in Space by Dionysus: Great anims and Brill music. Yeahaaa...
- 407: Walker 1 Animation (1 meg). Been around for a while. A classic
- 408: Walker 2 Animation (1 meg). Yep! You got it, another Classic
- 409: Walker 3 Animation (1 meg). Cor what a pair of legs.
- 412: The education of Cool Cougar (1 meg) Brilliant

- 413: The Probe Sequence
- 415: Fillet the Fish Animation by Jester Bros International
- 416: Stealthy II Animation: (1 Meg): Beautifully drawn and quite funny.
- 417: Lotus & Unicorn Animation: ■ meg: You'll like this one
- 418: Knight Animation: ■ meg: A picture in a book comes to life.
- 420: Fractal Flight: (1 meg): Demo of Fractal Flight by Hypercube. Wow!
- 422: Ugly Mug goes for a spin. Neat animation using digitised pictures.
- 423: Walker 1 Animation (2 meg). (2 disks): The full version. It's a classic

##### GENERAL

- 500: Jazzbench: Jazz up your Workbench
- 501: Fontis Disk: Loads of fonts
- 502: Wordprocessor
- 503: Spreadsheet
- 504: Database
- 505: Ghostwriter and Rainbowriter intro writers.
- 506: Dope Intro Writer
- 507: Virus Killer Disk
- 508: Tetra copier. New and very very good
- 509: Mobed. Excellent moveable object editor. Sprites come alive easily.
- 510: ESA utility disk. Tons of very useful utilities
- 511: North C: Complete programming language by Steve Hawlin
- 512: Complete C Manual: (2 disks): 200 page manual with 70 example progs.

##### GAMES

- 700: Lorenzo Games Collection 1: Old faithful Invaders etc.
- 701: Fish 347: Drip Game: Pure dead brilliant
- 702: Star Trek 3: ■ disks: absolutely fantastic.....
- 703: Return to Earth
- 704: Blizzard Game
- 705: Monopoly
- 706: Startrak (1 meg) (2 disks)
- 707: Paranoid: Arkanoïd like game with its own screen editor
- 708: Computer conflict: (enhanced with 1 meg): a rather nice shoot 'em up.

ALL DISKS  
99p  
each

ONE DISK FREE WITH EVERY 10 ORDERED PLUS EXTRA SURPRISES

No membership. FREE catalogue with every order. When you choose from Lorenzo's Domain you can be sure of getting the best VIRUS FREE P.D. around. We aim to have your order back in the post within 2 hours. Send your order with a cheque or P.O. and 50p towards p&p to:

LORENZO'S DOMAIN  
30 COLQUHOUN SQUARE, HELENSBURGH, G84 8AQ

#### AMIGANUTS UNITED

169, DALE VALLEY ROAD, HOLLYBROOK,  
SOUTHAMPTON, SO1 6QX  
PHONE 0703 785680 - 10am to 7pm Weekdays  
& 1pm to 5pm weekends



- 521: ALL NEW STAR TREK, with AUTHORISED English instructions. (2 DISKS). £4.00
- 812: STAR TREK (US VERSION) 1 meg 2 drives (2 DISKS). £4.00
- 634: The funny DONALD DUCK animation plus the WINDMILL anim £1.50
- 639: C MANUAL by Anders Bjerin. A three disk set, containing 200 pages of instructions on opening windows/screens/graphics/gadgets/sprites etc. Loads of examples/source progs. (FULL KNOWLEDGE OF THE CLI IS REQUIRED). £6.00
- 649: BUDBRAIN. An excellent TWO DISK MEGADemo, (FOR ADULTS ONLY). £3.00
- 640: 8 GAMES THE TRAIN SET makes this one a MUST for the kids. £2.00
- 680: WORD SQUARE SOLVER - Solve magazine puzzle squares with this one. £2.00
- 681: AMI-FX ISSUE 1. A 3 DISK SET FOR FRACTAL ENTHUSIASTS. (1 MEG MIN). £5.00
- 700: TETRACOPI. A good copier program by the same team that did XCOPY. £2.50
- 705: AMIBASE PROFESSIONAL. A licenceware database prog. by KEITH GRANT. £2.50
- 717: MUSIC DISK 53 tracks lasting OVER 90 MINS! (For the collection). £2.00
- 728: UTILS with BOOT-SHOP, IFFMASTER, BOOTKIT, DISKSCAN and others. £2.50
- 740: MED V2.13. A COMMERCIAL quality version of this FANTASTIC music utility with a host of new additions, including synth sounds etc. £2.50
- 741: NorthC V1.2. The VERY LATEST from Steve Hawlin, this new set comes on TWO DISKS and is packed with extra progs/examples/advice on bugs. £5.00
- 755: SUPER C COMMANDS disk from TWILIGHT (fast REPLACEMENT C DIR progs). £1.50
- 760: Letter writing disk by GRIZZLY, set up and ready for your letters. £1.50
- 785: MOBED. A good object editor by Martin Jones, (experience required). £1.50
- 790: PROFESSIONAL SOUNDTRACKER V1.0 is here! Just press HELP key, whilst running, for full instructions, ALSO latest Ntracker V2.12, by Exolon AND the FINAL version of DISKMASTER (V3), a very good CLI REPLACEMENT TOOL. £2.50
- 798: ROB BAXTER'S AMIGADEUS (MOZART), Long running classical music disk. £1.50
- 805: The Fantastic WRATH OF THE DEMON. Long running Animation demo. £1.00

#### AT LAST! THE DISK THAT ALL CODERS HAVE BEEN WAITING FOR.

**ACC 1-4:** The first four compressed issues of a new disk for coders, even if you are new to computers, this is the one to buy ■ you want to learn assembly etc. Absolutely PACKED with advice and sources etc., (devpac). Edited by MARK MEANY. THIS INTRODUCTORY ISSUE IS ON SPECIAL OFFER TO READERS FOR ONLY £1.50.

**ACC 5:** Here is the next issue of what looks like becoming a hot favourite with new and old Amiganuts alike. Packed with source, hints & tips from many of the well known people on the Amiga scene today. (This is a licenceware disk) £2.50

Competition issue catalogue disk is now available, you could win £100 worth of progs. (3 prizes). Send £1.00 and ask for your copy now!

All prices quoted above include the disk and return post/packing

We are the official UK distributors of the fantastic T.B.A.G. disks from USA and the very latest from this collection is always available from us first.

Prices start at only 50p (with disk) + FREE membership with first order



# Ladbroke Computing International



**All ST packs include 12  
Months on site warranty  
featuring 24 hour  
response time**

## ST Packs

520STFM Discovery Pack	£299.99
520STE Power Pack while stocks last	£389.99
520STE Turbo Pack	£389.99
1Mb STE Turbo Pack	£419.99
2Mb STE Turbo Pack	£499.99
4Mb STE Turbo Pack	£599.99

## Amiga Packs

A500 Batman Pack	£369.99
A500 Flight of Fantasy	£369.99
A500 Screen Gems	£369.99
Any of above + Tenstar + joystick + mouse mat	£399.99

## Service Centre

Our engineers can repair Atari ST's and Amigas in minimum time at competitive prices.  
Diagnostic service £15

Our engineers will examine a faulty machine and provide an estimate of the full cost of repairing the machine.

Fitting charge 1 £20

This is charged for the fitting of 1Mb and 2Mb board and chip memory upgrades, and 4Mb board upgrades for the STFM.

Fitting charge 2 £10

This is charged for the fitting of SIMM's boards, TOS upgrades, Blitter chip upgrades.

## Star Printers

Star LC-200	Star LC24-200	Special Citizen Swift
£219.99	£249.99	£319.99
7 Colour printer	24 Pin printer	24 pin printer
Colour + mono ribbon supplied	222 cps	192 cps
225 cps	5 Resident LQ fonts	Includes colour upgrade
5 Resident NLQ fonts	Accepts font cartridges	Bottom feed
Bottom feed	Bottom feed	Push or pull tractor feed
Push or pull tractor feed	Push or pull tractor feed	4 LQ fonts
Paper parking	Paper parking	Accepts font cartridges
Star LC24-200 7 Colour	£319.99	All Star Printers carry 12 months on site
Star Laser 8DB, 2Mb RAM	£1899.99	warranty (Mainland UK). All printers include
Star LC-10	£169.99	IBM Centronics cable. Phone for ribbons,
Star LC-10 Mk II	£189.99	paper and printer stands.
Citizen 120D+	£139.99	64K buffer 3 input switch £79.99
		256K buffer 3 input switch £149.99

## Monitors

Atari SM124 Hi-res Mono monitor	£ 109.99
Philips 8833 Colour, Stereo monitor	£ 249.99
Cmdr 1084S Colour monitor * limited offer *	£ 269.99
Philips 15" FST TV	£ 269.99
Philips 8833 + TV tuner	£ 299.99

The Philips 15" FST TV includes: FST, remote control, Scart input, 60 tuner presets, sleep timer and Fastext. All above displays come with Scart cable. Deduct £10 from Monitors only, if bought with computer. The Philips 8833 comes with full 12 months on site warranty.

### Please Read: Terms of Sale.

We are the longest established Atari dealer in the U.K. We have developed an extensive customer service policy which means that we test all Hardware/Software prior to despatch to ensure that goods arrive in working order. Although our prices are not always the cheapest we do endeavour to offer consistently good service and backup. This isn't just our opinion, we were voted "Best Dealer 1989" by the readers of ST World magazine, not for "the number of boxes shifted", but for quality service.

On Site Warranty: We have recently extended our backup programme by including 12 months on site warranty with all ST's at no extra charge. We already offer this service on All Star printers and Philips monitors.

All prices are correct at copy date 26/10/90, and are subject to change without prior notice. All prices are accurate while stocks last. Phone for up to date prices. All prices include VAT, there are no hidden extras (WYSIWYG). Delivery (in Mainland UK) is free, on orders over £100 (add £10 for next day courier delivery. All prices available on Mail Order. Shop prices may differ.

## Trust PC's

AT 12Mhz Desktop	£449.99
AT 12Mhz Mini tower 40Mb	£699.99
AT 16Mhz Desktop	£449.99
AT 16Mhz VGA Mini tower 40Mb	£749.99
386SX Mini tower	£629.99
386SX Big tower CK66 40Mb	£899.99
386SX-20 VGA Mini tower 40Mb	£979.99
386-25 VGA Mini tower	£1029.99
386-25 VGA Big tower CK66 40Mb	£1299.99
386-33 VGA Big tower CK590 40Mb	£1429.99
486-25 VGA Big tower CK590 210Mb	£3529.99
Mono Monitor	£99.99
VGA Colour Monitor	£299.99

Phone for further details

## Midistudio Master

- 100 tracks storage, 20 tracks playing simultaneously.
- 240 ppq resolution.
- Realtime mix-down via mouse.
- Realtime scrolling arrange window.
- 11 levels of quantise, including humanise.
- Pipeline/Module system.
- Loop record.
- Midi soft keys.
- Works on 1040STF(M)(E)

**Master  
£129.99**

Midistudio only £49.99

## Cumana 3.5" Drives

CSA 354: ST 3.5" drive.	£69.99
CAX 354: Amiga 3.5" drive.	£64.99
ST Internal drive upgrade.	£64.99

The Cumana, ST internal drive requires the ST's case to be modified (full instructions supplied). The external ST drive is a high quality, slim, quiet drive which comes complete with integral power supply and so does not draw power from the ST which could cause problems. Add £3 P&P for drives.

## Lantech Netwk

We are the U.K. Distributor of the Lantech Network

- Uses Cartridge port.
- 10 Megabit per second data transfer rate.
- Up to 200ft between ST's.
- Any computer can be configured as a server to share, Hard, Floppy, RAM disks and Centronics printer.

Lantech server and node **£374.99** Lantech Add-on-Kit **£179.99**



# Kawai Fun Lab Music System



## Amiga MIDI interface

1x MIDI IN  
2x MIDI OUT  
Colour matched to Amiga

## Keyboard FS680

- 61 Full sized keys
- 100 preset sounds
- 16 bit PCM quality
- 100 preset rhythms
- 32400 sound combinations
- ONE-FINGER AD-LIB
- 2x Stereo speakers
- Effects: Chorus, Sustain, Pitch up/down
- 2x MIDI cables

## Amiga Software

- 5 Track sequencer
- 5 channel mixer
- Quantization
- Left/right locator
- Auto loop
- Graphic notation
- Lyrics(KARAOKE)
- Registration page
- Synthesizer editor

Funlab Music System for Amiga including: MIDI interface, FS680 Keyboard, Midi cables and software.

**For Amiga £330**

Kawai Music system for ST including FS680 keyboard, MIDI cables and Midistudio sequencer software.

**For ST £330**

Funlab Junior is available for the Amiga priced £230. Phone for details.

## Ladbroke Computing Hard Drives

We use only top quality, brand new, CDC or Quantum mechanisms. Not reconditioned mechanisms.

- Autoparking 3.5" mechanisms.
- Extra long DMA.
- Full metal case suitable as monitor stand.
- On/off button and DMA device selector mounted on front.
- Integral PSU.
- DMA Out port for daisy chaining.
- Megadrive controller, low power, controls up to 8 SCSI drives.
- Compatible with emulators such as Spectre GCR, AT Once.
- Up to 16 GEM partitions (255 with TOS 14), up to 1 Gigabyte in size.
- Selection of Accessories/boot partition with boot editor.
- Backup & utility software provided.

42HD - 42Mb 11ms access time	Only £ 479.99
48HD/28 - 48Mb 28ms access time	Only £ 399.99
84HD - 84Mb 24ms access time	Only £ 579.99
111HD - 111Mb 15ms access time	Only £ 699.99
211HD - 211Mb 15ms access time	Only £ 1099.99

Phone for other capacities

## A4 Scanner

- 200 Dpi scanner.
- 18 grey scales or Black/White mode.
- High quality thermal image printer.
- Acts as photocopier.
- Works with ST, Amiga, PC, requires 1Mb RAM.
- Amiga version includes Photon Paint II.
- Comes complete with software, cable, thermal paper.
- Thermal paper available ex-stock at £7.99 per roll.

IMO scanner still available at an incredible £49.99

## ST FAX/Modem

Now you can use your ST to send faxes. Uses a fully featured modem so you can also access Bulletin boards and commercial communication systems.

- Fully Hayes compatible modem
- Auto dial/ Auto answer
- 300/1200/2400 Baud
- Mix text and graphics.
- Cannot receive faxes.

**£190**

ST or Amiga Version  
**£449.99**  
Powerstation board  
**£479.99**

## Now Prices Upgrades

### Amiga boards

Includes Enable/Disable switch  
512K upgrade board £34.99  
512K board with clock £39.99

### STE SIMM's

512K SIMM's upgrade £39.99  
2Mb SIMM's upgrade £119.99  
4Mb SIMM's upgrade £239.99

512K STFM, 16 or 4 chip kit	£ 39.99	512K ST board+chips, kit	£ 59.99
2Mb ST board+chips, kit	£ 159.99	4Mb ST board+chips, fitted	£ 344.99
TOS 14 kit (8 ROM's)	£ 39.99	STFM Bitter chip, kit	£ 39.99

Please check configuration of your machine with our staff before ordering. Prices quoted for machines not previously tampered with. All upgrades carry 90 days parts and labour guarantee.

## Spectre GCR

"Power of the Mac, without the price."

- Reads, writes and formats Mac disks.
- Supports Hard drive and second floppy.
- Compatible with STE, Slacy.
- 30% bigger screen area than Mac Plus.
- Runs 20% faster than Mac Plus.
- Software upgrades available.
- Send SAE for Spec' sheet.

Spectre GCR  
With 2MB RAM  
**£369.99**

We are the consistently longest serving supplier

## Quality Disks

Qty	Bulk Sony or Kao		Sony Brand Boxed in 10's
	Loose	Boxed	
10	£ 5.99	£ 6.99	£ 9.49
40	£ 20.99	£ 26.99	£ 34.99
100	£ 48.99	£ 57.99	£ 84.99
150	£ 66.99	£ 83.99	£ 125.99

All bulk disks are top quality Sony or Kao, not cheap seconds. All disks carry an unconditional lifetime guarantee. Please add 75p P&P for each 10 disks, £3.00 for 100 and above.

**How to Pay**  
You can phone your Account or send a cheque/postal order payable to Ladbroke Computing International. Please allow sufficient clearance time.

33 Ormskirk Road, Preston, Lancashire, PR1 2QP Open Monday to Saturday 9:00am to 5:00pm. Dealer enquiries welcome. Ladbroke Computing International is a trading name of Walton Marketing Limited. All trade marks recognised.

**Ladbroke Computing International**

(0772) 203166 Fax 561071

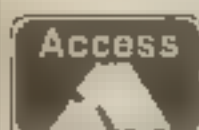


# SOFTSELLERS

MAIL  
ORDER

6 BOND STREET, IPSWICH, SUFFOLK IP4 1JE

MAIL  
ORDER



5A DOG'S HEAD STREET, IPSWICH, (RETAIL)

VISA

MAIL ORDER PURCHASE LINE (0473) 257158/ (0473)210605 FAX (0473) 213457

	ST	AMIGA		ST	AMIGA		ST	AMIGA
* 4th Dimension.....	16.99	16.99	Gold of the Aztecs.....	16.99	16.99	* Panic Station.....	13.99	13.99
688 Attack Sub.....	16.99	16.99	* Grim Blood.....	13.99	13.99	* Pyramax.....	13.99	13.99
* Adidas Champ Tie Break.....	16.99	16.99	* Guns and Butter.....	19.99	19.99	* Ramrod.....	16.99	16.99
Ants Head (Data Disk).....	12.99	12.99	* Golden Axe.....	13.99	13.99	Reach for the Sky.....	16.99	19.99
* Alpha Waves.....	16.99	16.99	* Hammerfist.....	16.99	16.99	* Rally.....	16.99	16.99
* Amnios.....	13.99	13.99	* Harpoon.....	19.99	19.99	Rainbow Island.....	13.99	16.99
* Ancient Art of War.....	16.99	16.99	Harley Davidson.....	19.99	19.99	Resolution 101.....	16.99	16.99
* Ant Art War at Sea.....	16.99	16.99	Hero Quest.....	24.99	24.99	* Rogue Trouper.....	16.99	16.99
ATF 2.....	16.99	16.99	Heroes (Comp).....	19.99	19.99	Rourke's Drift.....	16.99	16.99
* Atomics.....	13.99	13.99	* Hard Drivin 2.....	16.99	16.99	Rick Dangerous II.....	16.99	16.99
* Alcatraz.....	16.99	16.99	Halls of Montezuma.....	16.99	16.99	Rotox.....	16.99	16.99
Atomic Robokid.....	16.99	16.99	Hollywood Collection.....	19.99	19.99	* Robocop 2.....	16.99	16.99
* Action Fighter.....	15.99	15.99	Ivanhoe.....	13.99	16.99	* Rail Road Tycoon.....	16.99	16.99
* Adidas Champ. Football.....	16.99	16.99	Int. 3D Tennis.....	16.99	16.99	Red Storm Rising.....	15.99	15.99
Anarchy.....	13.99	13.99	Int. Champ. Wrestle.....	16.99	16.99	* Riders of Rohan.....	16.99	16.99
* Aquaventura.....	24.99	24.99	Imperium.....	16.99	16.99	S.E.U.C.K.....	19.99	19.99
* Awesome.....	24.99	24.99	Infestation.....	16.99	16.99	* Speedball 2.....	15.99	15.99
* Armour Geddon.....	16.99	16.99	* Interceptor.....	16.99	16.99	* Sword of Samurai.....	16.99	16.99
* Barbarian II (Psygnosis).....	16.99	16.99	Italy 1990.....	13.99	13.99	* Secret Agent Flies By.....	13.99	13.99
Bankok Knights.....	13.99	16.99	Indy 500.....	16.99	16.99	Storm Across Europe.....	19.99	19.99
Battlechess.....	16.99	16.99	* Iron Man.....	13.99	13.99	Space Quest III.....	19.99	19.99
* Bad Lands.....	16.99	16.99	* Immortal.....	16.99	16.99	* Spindizzy 2.....	16.99	16.99
* Battle Command.....	16.99	16.99	It Came From Desert.....	16.99	16.99	* Silver Blades.....	16.99	16.99
Battle Master.....	19.99	19.99	* Judge Dredd.....	13.99	13.99	* Simulcra.....	16.99	16.99
BSS Jane Seymour.....	16.99	16.99	Knights of Krystallion.....	19.99	19.99	Shadow of the Beast 2.....	16.99	24.99
* Betrayal.....	19.99	19.99	Kick Off II.....	12.99	12.99	STOS.....	19.99	19.99
Bomber Mission Disk.....	12.99	12.99	Kick Off 2 wce.....	16.99	16.99	* Shadow Sorcerer.....	16.99	16.99
Batman (Movie).....	13.99	16.99	Kick Off 2 (1Meg Version).....	16.99	16.99	Street Fighting Man.....	13.99	13.99
Blue Angels.....	16.99	16.99	Kick Off Extra Time.....	9.99	9.99	* Sly Spy.....	13.99	16.99
* Billy the Kid.....	16.99	16.99	Kick Off Comp.....	16.99	16.99	* Stephen Hendry		
* Bad Blood.....	19.99	19.99	Klax.....	13.99	13.99	Championship Snooker.....	16.99	16.99
Black Tiger.....	13.99	16.99	Killing Game Show.....	16.99	16.99	Snow Strike.....	16.99	16.99
* Blade Warrior.....	15.99	15.99	* Light Corridor.....	13.99	13.99	Shadow of Beast.....	16.99	16.99
Budakhan.....	16.99	16.99	Life and Death.....	19.99	19.99	Shadow Warriors.....	13.99	13.99
* Buck Rogers.....	16.99	16.99	Lotus Turbo.....	16.99	16.99	Subbuteo.....	16.99	16.99
Captive.....	16.99	16.99	Legend of Faerghil.....	16.99	16.99	Sim City.....	19.99	19.99
* Cutipo.....	16.99	16.99	Leisuresuit Larry III.....	29.99	29.99	Star Flight.....	16.99	16.99
Chase HQ.....	13.99	16.99	* Lemmings.....	16.99	16.99	Supremacy.....	13.99	13.99
Cabal.....	13.99	16.99	* Leaving Teramls.....	13.99	16.99	Supercars.....	16.99	16.99
Cadaver.....	16.99	16.99	Last Ninja II.....	16.99	16.99	* Stun Runner.....	16.99	16.99
* Crime Wave.....	16.99	16.99	Loom.....	16.99	16.99	Spy Who Loved Me.....	13.99	13.99
* Carthage.....	15.99	15.99	Lost Patrol.....	13.99	16.99	* The Plague.....	16.99	16.99
Conqueror.....	16.99	16.99	* Last Stuntman.....	12.99	12.99	Time Machine.....	16.99	16.99
Corporation.....	16.99	16.99	* Legend Billy Boulder.....	16.99	16.99	Teenage Turtles.....	16.99	16.99
* Champion of Raj.....	16.99	19.99	Manic Mansion.....	16.99	16.99	Thunderstrike.....	16.99	16.99
* Corvette.....	19.99	19.99	Magic Fly.....	16.99	16.99	* Tournament Golf.....	13.99	13.99
Combo Racer.....	16.99	16.99	Midwinter.....	19.99	19.99	Triad II (Comp) IV.....	19.99	19.99
Chess Champion 2175.....	16.99	16.99	Monty Python.....	13.99	13.99	* Team Suzuki.....	16.99	16.99
* Chuck Yeagers A.F.T.....	16.99	16.99	Midnight Resistance.....	16.99	16.99	Team Yankee.....	19.99	19.99
Colorado.....	16.99	16.99	* Mystical.....	16.99	16.99	* Toyottes.....	13.99	13.99
Chaos/Dungeon Master.....	19.99	16.99	* Murder in Space.....	16.99	16.99	* Total Recall.....	16.99	16.99
Chaos Strikes Back.....	16.99	16.99	Manchester United.....	13.99	16.99	* Toki.....	16.99	16.99
* Chess Simulator.....	16.99	16.99	Matrix Marauders.....	16.99	16.99	TNT.....	19.99	19.99
Death Trap.....	16.99	16.99	* Mean Street.....	16.99	16.99	Tennis Cup.....	16.99	16.99
Defenders of the Earth.....	12.99	12.99	M1 Tank Platoon.....	19.99	19.99	Turrican.....	16.99	16.99
Dungeon Master Editor.....	9.99	9.99	Murder.....	16.99	16.99	Tusker.....	16.99	16.99
Dragons Breath.....	19.99	19.99	Magician.....	16.99	16.99	* The Keep.....	16.99	16.99
* Dragon War.....	16.99	16.99	* Moonblaster.....	16.99	16.99	TV Sports Basketball.....	16.99	19.99
Days of Thunder.....	19.99	19.99	* Myth.....	16.99	16.99	Ultimate Golf.....	16.99	16.99
Dragon Fight.....	19.99	19.99	New York Warrior.....	13.99	13.99	Untouchables.....	13.99	16.99
Drakken.....	19.99	19.99	Nuclear War.....	16.99	16.99	Universe III.....	15.99	15.99
* Duster.....	16.99	16.99	* Navy Seals.....	16.99	16.99	* UMS II.....	19.99	19.99
* Dynamic Debater.....	15.99	15.99	* Narc.....	16.99	16.99	Ultima V.....	19.99	19.99
Dynasty Wars.....	16.99	16.99	* Nitro.....	16.99	16.99	* Up and Away.....	16.99	16.99
* Eagle Rider.....	16.99	16.99	Night Breed.....	16.99	16.99	Vaxine.....	13.99	13.99
* Ecstasy.....	13.99	13.99	North and South.....	15.99	15.99	Venus Fly Trap.....	13.99	13.99
E-Motion.....	13.99	16.99	Neuromancer.....	16.99	16.99	* Vendetta.....	16.99	16.99
Emlyn Hughes Int. Soccer.....	16.99	16.99	* Omnicon Conspiracy.....	16.99	16.99	* Vebulus 2.....	16.99	16.99
* Enterprise.....	13.99	13.99	Op Stealth.....	16.99	16.99	Voodoo Nightmare.....	16.99	16.99
* Edition 1 (Comp).....	19.99	19.99	* Operation Harrier.....	16.99	16.99	Warhead.....	16.99	16.99
* Flash Dragon.....	13.99	13.99	* Outboard.....	16.99	16.99	* Welltris.....	16.99	16.99
* Finale (Comp).....	16.99	16.99	* Obitus.....	24.99	24.99	* War Jeep.....	16.99	16.99
* Football Simulator.....	13.99	13.99	* Oriental Games.....	15.99	15.99	* Wolfpack.....	16.99	16.99
F29 Retaliator.....	16.99	16.99	* Paranoid 90.....	16.99	16.99	Wheels of Fire.....	19.99	19.99
F19 Stealth Fighter.....	19.99	19.99	* Pang.....	16.99	16.99	Wings.....	19.99	19.99
F16 Combat Pilot.....	15.99	15.99	* Plotting.....	16.99	16.99	* Wonderland.....	19.99	19.99
Falcon.....	16.99	16.99	* Projectyle.....	16.99	16.99	World Champ. Soccer.....	13.99	16.99
Falcon Mission 2.....	13.99	13.99	* Pinball Magic.....	13.99	16.99	* WLF.....	16.99	16.99
Flood.....	16.99	16.99	* Power Monger.....	19.99	19.99	War Monger.....	16.99	16.99
* Future Basketball.....	16.99	16.99	* Pop Up.....	13.99	13.99	* WARF.....	12.99	12.99
Fighter Bomber.....	19.99	19.99	Police Quest II.....	16.99	16.99	Xenomorph.....	16.99	16.99
Flippit Magnose.....	16.99	16.99	Player Manager.....	12.99	12.99	* Xiphos.....	16.99	16.99
* Flight of Intruder.....	19.99	19.99	Photon Storm.....	13.99	13.99	* Yollander.....	16.99	16.99
						* Zone Warrior.....	16.99	16.99

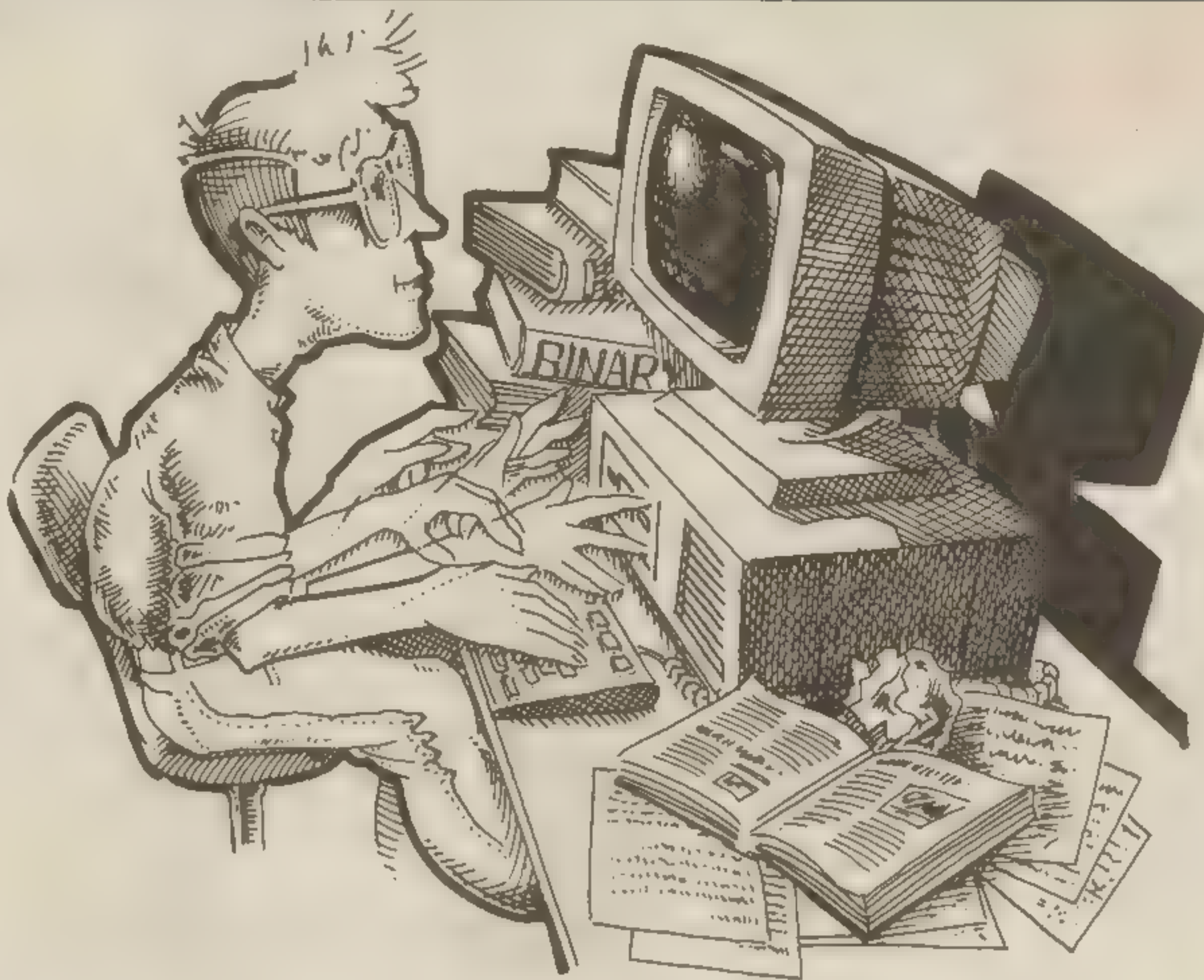
CHEQUES AND POSTAL ORDERS PAYABLE TO SOFTSELLERS. POST AND PACKING FREE IN UK. OVERSEAS £1.50 per item. Subject to availability and price change without notice. \*Some titles may not be released at time of going to press. Shop prices may vary, but personal callers can claim advertised discounts on production of cut-off slip.







As of next week Express will be running a regular weekly column on programming and its mysteries. This week we look at some of the topics which will shortly become clear to you. A quick Lisp anyone?



# THE INDUCTION PROGRAM

**W**e all need programs – our machines simply wouldn't work without them – but few of us actually take up the challenge and get programming. Which is a bit of a shame: programming is an intellectual puzzle of the best kind – you are not 100 per cent sure there is a solution to your problem – and of course you can end up with some useful software to boot.

Programming really isn't as hard as it's made out to be. Once the jargon bar-

rier has been broken it doesn't take a mathematical genius to produce a serviceable program, and you quickly realise that there are many pieces of 'commercial' software you could do yourself quite easily!

To help you make your way through the minefield of learning programming Express is starting a series of articles designed to make everything become clear. We don't claim that if you read the next 26 issues of Express you'll be a fully fledged programmer, but you will

have a firm grasp on the principles involved, and with plenty of practice you should be able to turn out a respectable piece of software.

So what will we be covering? Next week we'll take a look at the fundamental principles of programming and give you a head start in understanding some of the jargon involved. Then in the following weeks we'll be looking at:

- Prototyping
- Programming style
- Choosing an algorithm

- Notation
- Pseudocode
- Program layout and documentation
- CASE
- Structured programming
- Object-oriented programming
- Debugging
- Optimising
- Porting code and writing for different architectures
- Arrays and data structures
- List processing and sorting
- Recursion
- Variables
- Graphics programming
- Modelling
- Languages, including C, Pascal, Modula 2, Assembler, BASIC, Prolog, Lisp, and C++

Phew! If you understood all those terms, you don't need to bother with the programming series. If you missed a couple, then turn to this page next week when Mary Branscombe, who was with *Program Now* prior to joining us here at Future Towers, will make a start on the big wide world of programming. ■

## MAKE A CHEAP START IN THE PROGRAMMING JUNGLE

You need a programming language before you can start programming. It sounds a bit obvious, but it's true. Most 8-bits come with a programming language built in, their 16-bit cousins will need to load a disk with the language first.

The most common

language is BASIC. It's supplied free with most micros – the exact version depending on the machine. For instance most PCs come with GW-BASIC or BASICA, while an Archimedes comes with BASIC V and an ST with Atari BASIC.

If you want to get more

adventurous the place to go first of all is a public domain library. Turn to the Public Domain Column on page 58 or have a delve into the advertisements to pick up some names and addresses, but any library worth its salt should be able to let you have a PC version of C or one

of the other compiled languages for the price of a disk. It's vital to get one with good documentation – all the programming theory in the world won't tell you if you need inverted commas around a variable in a particular dialect of a language!



# ALL FORMATS COMPUTER FAIRS

Thousands of bargains for every computer!

SUNDAY 4th NOVEMBER 10am - 5pm

SATURDAY 15th DECEMBER 10am - 5pm

**AT:** The New Hall of the Royal Horticultural Society  
Greycoat & Elverton Street  
Westminster - London

**TUBES:** Victoria - Pimlico - St James Park  
Admission £3.00

**STANDS ONLY £75**

**Book with:** JOHN RIDING - 0225 447453  
MIKE HAYES - 0457 875229

**TICKETS:** Avoid queuing advance tickets from  
Mike Hayes - 8 Midgrove - Delph  
Oldham OL3 5EJ Tel: 0457 875229 £3.00 each  
(Cheque - Visa - Access)

**THE CROOKER COMPUTER FUTURE**  
0898 299399  
3 mins of mind blowing entertainment

**SAM COUPE THE HOTTEST HOTLINE**  
0898 299380  
featuring Alan Miles & Bruce Gordon

**THE HOTTEST GAMES SECRETS**  
0898 299380  
MEGATOP

**TONY TAKUSHI CONSOLE LOVE**  
0898 299390  
GAMESLINE

## PD & SHAREWARE who do you get yours from?



There are many PD libraries around but do they offer you....

- ★ Huge collection, thousands of programs on over 3000 disks
- ★ Same day service - 1st Class post - GUARANTEED
- ★ Knowledgeable staff on hand (no 'phone after six and ask for Fred'!)
- ★ Three years experience collecting and distributing PD & Shareware to satisfied customers all over the world.
- ★ FREE 30 page catalogue, S.A.E (35p stamp) and state MAKE of computer CLEARLY and we'll rush one to you by return.

### AMIGA

currently over 800 disks in our catalogue, including Fred Fish, APDC, AMKUS, Panorama etc. Our own SOF collection is so good other libraries stock them now and of course we are exclusive distributors of the fabulous UGA disks. All are auto-boot, menu driven and so very easy to use, probably the best collection available! We also run an Amiga Club, ask for details.

### ATARI ST

We currently stock over 800 disks full of PD/Shareware for these machines, containing every imaginable type of program! Choose from ALL the Public Domain, not just "a selection". If you are new to ST'ing why not join "Clubville", our popular user group, £6.50 gets you newsletters, offers, special prices on goods, 5% OFF blanks/PD etc.

### IBM PC

(and compatibles)

Thousands of the most popular Public domain and Shareware programs in our current catalogue, all available on either 3.5" or 5.25" format, if ordering (opposite) state which. Whatever type of program you may require, we've probably got it.

**MEGA PACK - £19.50 (£14.50)**

5 PD disks + 5 blank disks  
plus a Library case

(Selection of current popular titles)

**INTRO DISK - £1.50**

(Atari or Amiga only)

**VIRUS KILLER DISK - £1.50**

(state machine clearly)

(prices in brackets for 3.5" disks, state preferred)

24 Hour orderline on

**0705-266509**

**SOFTVILLE**

Unit 5, Stratfield Park,  
Electra Avenue, Waterlooville,  
Hants. PO7 7XN

Two new brilliant books from the publishers of New Computer Express, Amiga Format and ST Format

If you're the proud owner of a Commodore Amiga or Atari ST, then the *Get the most out of your Amiga* and *Get the most out of your ST* books are invaluable tools for you.

## THE ONLY WAY TO GET THE MOST OUT OF YOUR AMIGA & ST

In 172 information-packed pages it aims to provide advice on all aspects of the Amiga and ST scene: what software to buy, how you can get it free through the PD libraries, how to solve those tricky technical problems, where you're going wrong with a game you can't beat.

You can get all this for the bargain price of only £9.95. Alternatively, for a mere £4 more you can also have two 880K disks absolutely packed with the most useful utilities and the most entertaining programs, carefully picked to be the essential collection from the PD and elsewhere. Start getting the most out of your Amiga and ST!

### BOOK ORDER FORM

- ☐ Yes, I would like to order \_\_\_\_\_ copy/copies of  
**GET THE MOST OUT OF YOUR AMIGA** at the recommended price £9.95  
(Please add £1.45 per copy to cover p&p.)
- ☐ Yes, I would like to order \_\_\_\_\_ copy/copies of **GET THE MOST OUT OF YOUR AMIGA** plus two disks at the recommended price of £13.95.  
(Please add £1.45 per copy to cover p&p.)
- ☐ Yes, I would like to order \_\_\_\_\_ copy/copies of  
**GET THE MOST OUT OF YOUR ST** at the recommended price of £9.95  
(Please add £1.45 per copy to cover p&p.)
- ☐ Yes, I would like to order \_\_\_\_\_ copy/copies of **GET THE MOST OUT OF YOUR ST** plus two disks at the recommended price of £13.95.  
(Please add £1.45 per copy to cover p&p.)

If paying by cheque, please enclose payment with this card in a sealed envelope addressed to:  
Get the Most...Book Offer, FREEPOST, Future Publishing Ltd, The Old Barn, Somerton,  
Somerset TA11 7BR. (No stamp is needed if the letter is posted in the UK.) Please allow  
up to 28 days for delivery.

Name: (BLOCK CAPITALS PLEASE) .....

Address: .....

Postcode: .....

Telephone: .....

I enclose a cheque for £ .....

Made payable to Future Publishing Ltd

My credit card number is: .....

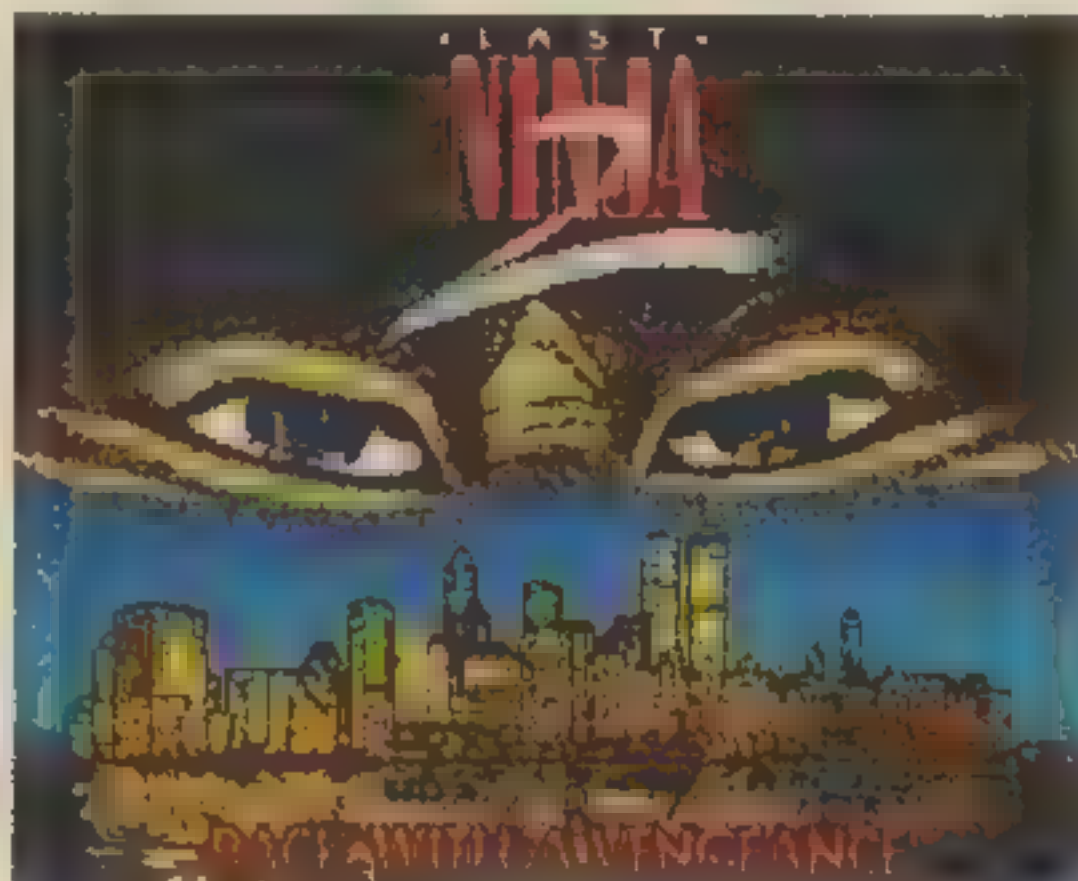
Expiry date: .....

I wish to pay by Access/Visa\*

(\*please delete as appropriate)

Signed: .....





### A BIT OF A MIXUP?

Take an old game, add a few sprites, change music and improve playability then re-release ■ ■ over again. Sounds like a good money-making idea to me. System 3, renowned for its ninja games, recently announced that it would be producing the *Ninja Remix*. On the 8-bits this game is really a re-write of *Last Ninja 2* with

■ This is the shortest ever solution to *Damocles*? Alastair Webb from Hants believes it is. His helpful tip enables you to save both Eris and Damocles.

If you think you can beat Alastair's solution and come up with a faster route then drop us a line.

# MARK HIGHAM'S GAMES WEEK

some major enhancements. The music has been remixed, animated sequences introduce each level and the playing area has been increased.

ST and Amiga owners are also to be treated to their own version of the *Ninja Remix* but in the case of the 16-bits, this will be a completely brand new game.

In *Ninja Remix* you go to the island of Lin Fen ■ avenge your brother's murder. The island is divided into six regions and each one offers you the chance to use your fists, feet and any other part ■ your anatomy going

spare, ■ turn Kunitoki's henchmen into writhing scum. Part of the challenge comes in finding a route through the treacherous landscape. The six levels take you through wastelands, wilderness, dungeons, the palace and the inner sanctum.

8-bit versions of *Ninja Remix* will be ready by the time you read this with cassette versions retailing for £9.99 and disk formats selling for £14.99. The ST and Amiga versions of *Ninja Remix* will be available at the beginning of December, selling for £24.99.

## PLAYING TIPS: a tour to Damocles



■ Get the spaceship as instructed then fly to Loc-ref 12:14 and get the A-Z computer.



■ Fly to Loc-ref 15:03 and buy the pressure suit.



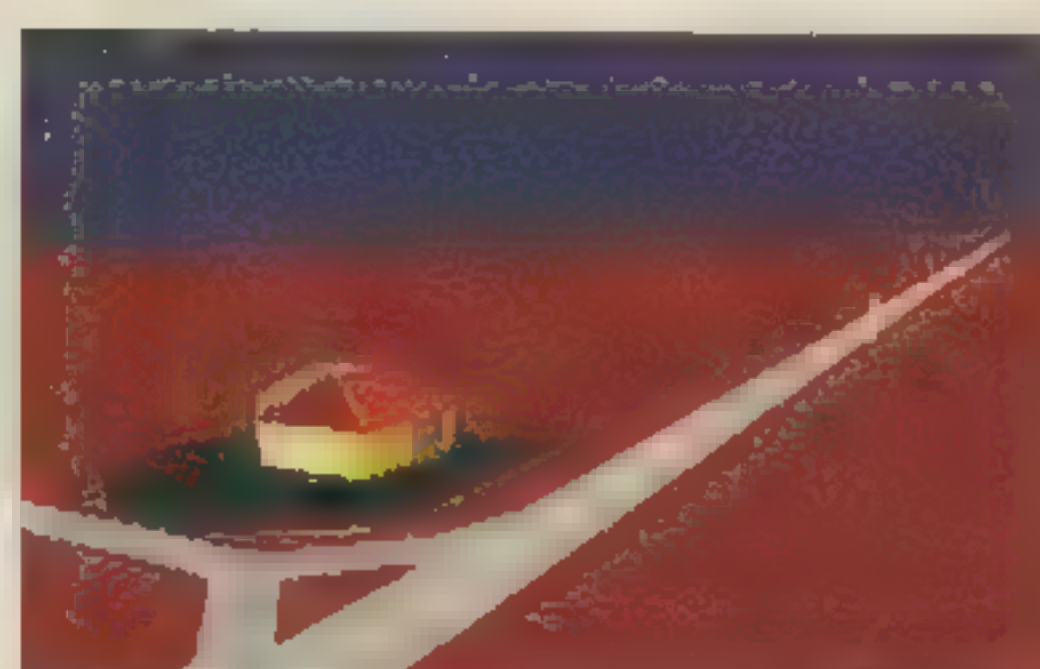
■ Fly ■ Snow Island and land ■ Loc-ref 3:00 and get the cupboard. It has a Nova trigger inside.



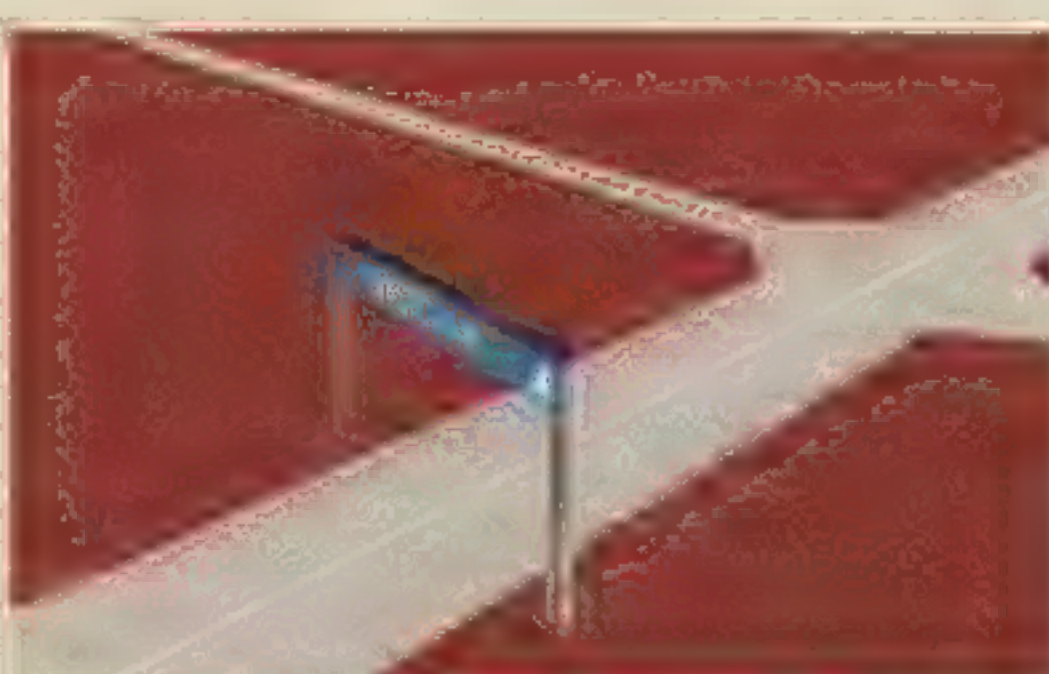
■ Fly ■ Bare Island and land ■ Loc-ref 6:02 and enter the transporter. Keep entering it until you get to Loc-ref 7:01 UR city on Gaea. Find the slideboard with a Nova trigger in it and return the way you came.



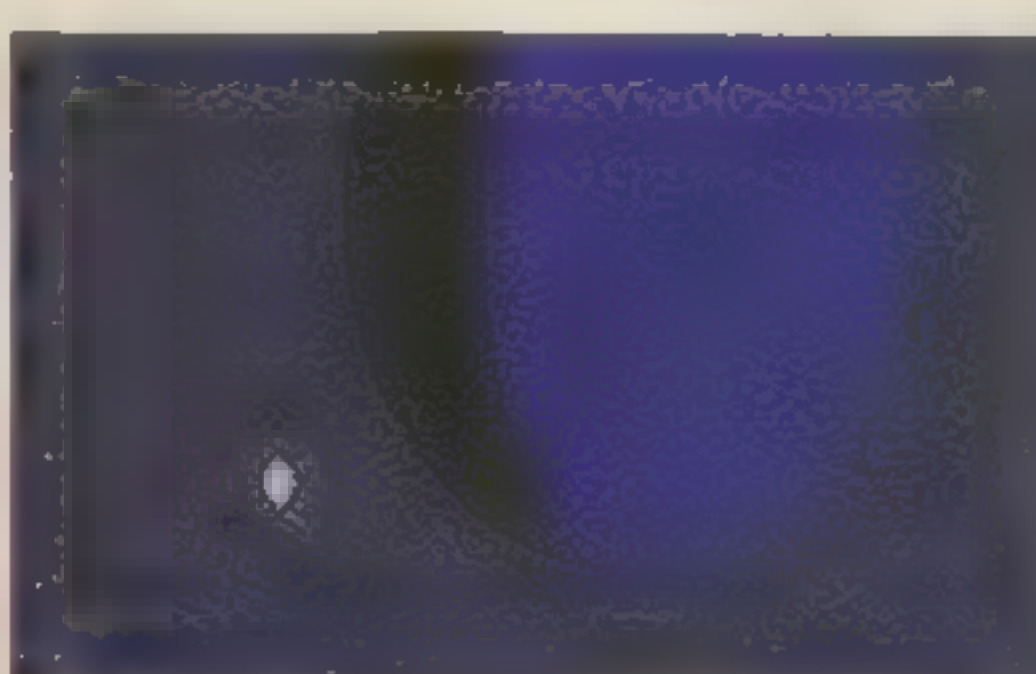
■ Fly ■ Metis and land ■ Loc-ref 5:06 and get the washbasin. To pick it up walk ■ the table that faces you when you enter. The wall behind the table moves because it is really a door. In the room you will find the washbasin. This has a nova trigger inside.



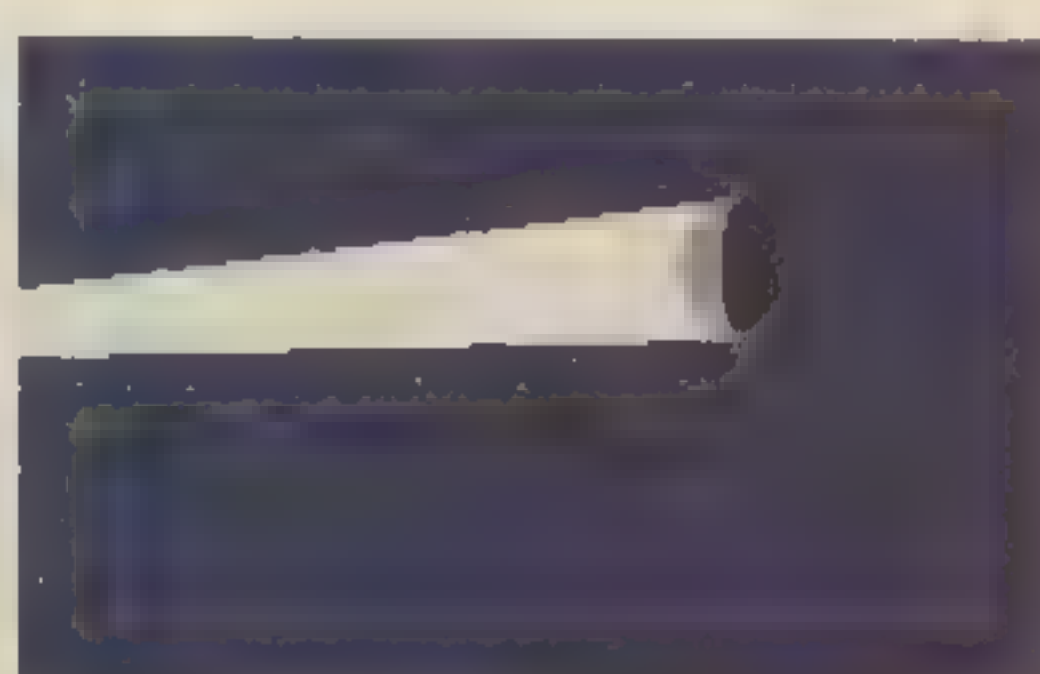
■ Fly ■ Chaldea Metropolis on Gaea and land ■ Loc-ref 6:06 and get the Gold from the basement. Next fly to Loc-ref 5:08 and sell the gold. Now fly ■ Loc-ref 5:06 and get the Hi-Fi system containing a Nova trigger.



■ Fly to UR City on Gaea and land ■ Loc-ref 6:02 and get the Nova bomb behind the lift in the basement.



■ Fly ■ the planet Icarus and land anywhere. Leave the Nova bomb and fly a good distance away.



■ Switch on the Nova triggers one by one and watch the planet Icarus explode. Wait where you are for your rewards. The solution must be carried out within the first ■ minutes of play so don't go sightseeing.



# NOT JUST ANOTHER CAR GAME



• After Corporation, Core releases a cutesy game on wheels. If your driving techniques match those of the Dukes of Hazzard, you'll do wheelies over this one. ■ additively different.

Last Christmas saw an explosion of car racing games. Getting in on the act a little late is Core Design with *Carvup*. Don't expect manic racing action though. *Carvup* is much more of a cutesy game than a your traditional foot-to-the-floor stuff. The idea is to zoom round the levels, leaping onto platforms and changing the colours of the steel girders supporting you. When you've driven over every platform a helicopter appears out of nowhere ■ carry you onto the next level.

It sounds an incredibly simple concept and it ■. What makes it a hit, though, ■ the unusual control method of the car and some amusing graphics. The game is still a month away yet, but if the demos are anything to ■ by it's hugely absorbing and addictive.

## DAMOCLES – THE NIGHTMARE CONTINUES

Judging by the huge quantity of *Damocles* tips that are constantly flooding in, everyone ■ totally hooked by it. For those of you who have completed the game several times over, Novagen ■ releasing the first of two mission disks. Mission disk 1 features five new missions set in the same environment as the original game. Apparently there are many elements ■ *Damocles* which many game players will never have seen; the new mission disks reveals some of these concealed features.

Mission disk 1 ■ set for release on 14 November, followed on 9 January by mission disk ■. Both will be available for the ST and Amiga, priced ■ £9.99.

Contact Novagen Software on 021-449 9516. ■

# A NIGHTMARE OF A GAME REVIEW

## VOODOO NIGHTMARE

PALACE • ST • £24.99 Amiga • £24.99

If there's one sure fire way ■ guarantee attention for your game, it's to come up with the kind of subject which ■ going ■ offend people and that's exactly what Palace has done with *Voodoo Nightmare* – a game all about the art ■ black magic.

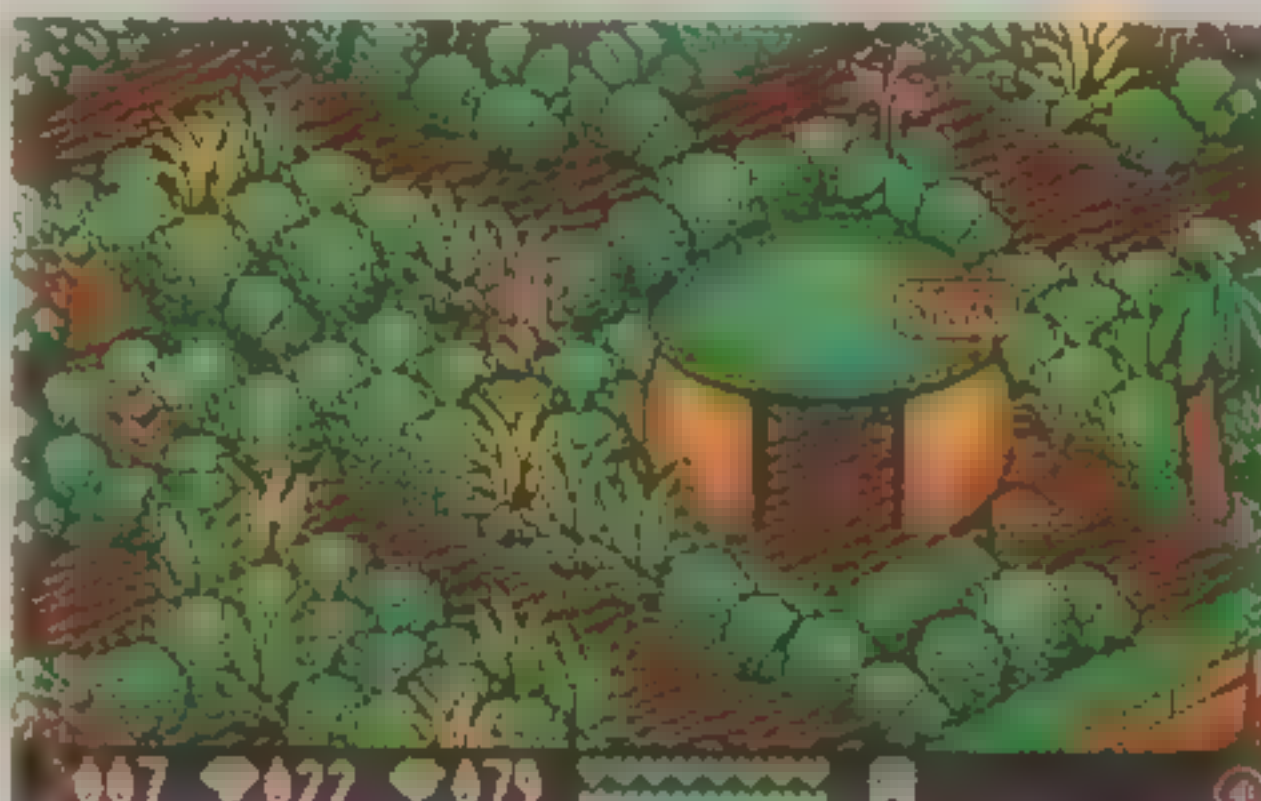
The game puts you in charge of a hideous character going by the charismatic name ■ Boots Barker. Some unfriendly African witch doctor has locked his face up inside a death mask and he's now desperately trying to free himself. To lift the evil curse and release Boots, you need to collect eight pins then buy yourself an effigy of the witch doctor and proudly ram the pins home. Although the game is split into two distinctive sections, the main part of the challenge comes in locating these pins.

The game is set in the middle ■ a jungle, populated by monkeys, snakes and other jungle life. In between dodging this unhealthy bunch and collecting bananas which are used as currency in the jungle shops, you need to find temples which house the pins. There are five temples in all and they need to be tackled in the correct order. Once inside a temple you face a crowd of separate rooms all linked via small doors. Spiders and

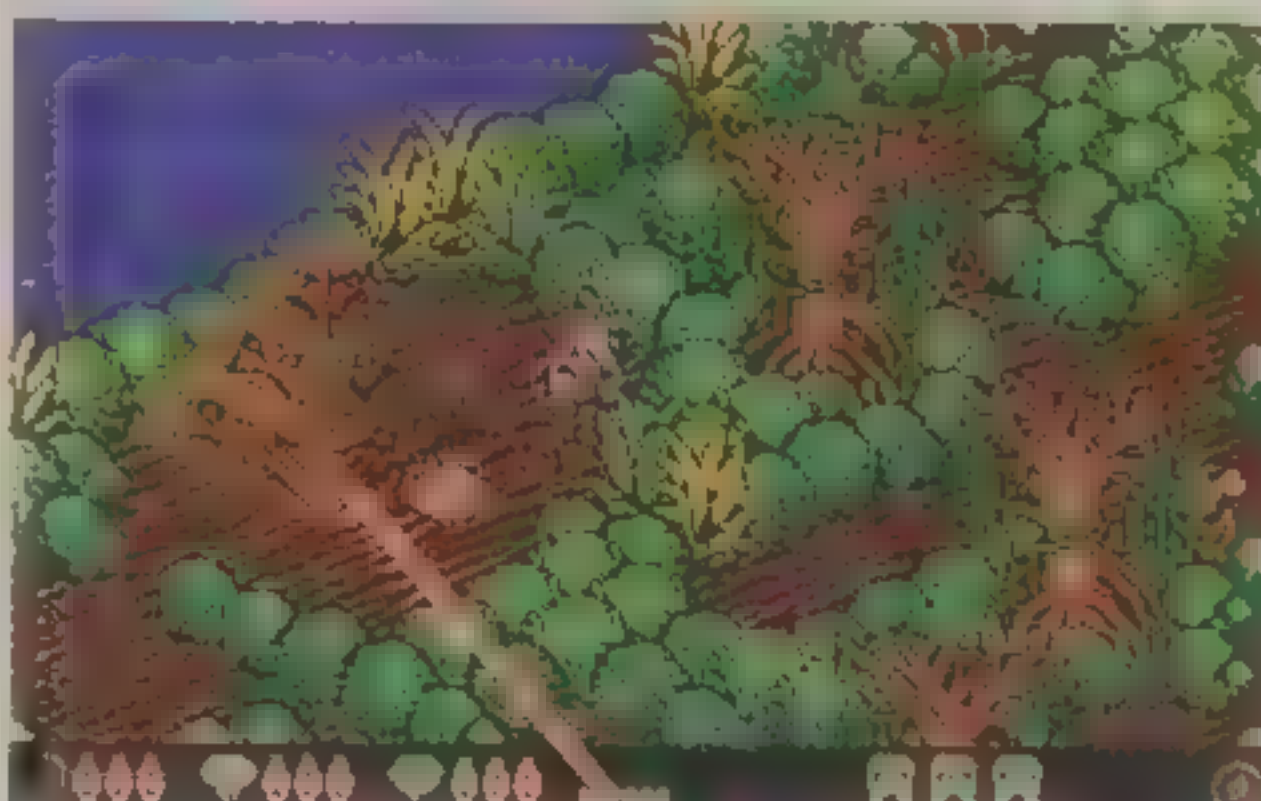
other offensive creatures follow you round the maze of rooms, attempting to trap you and rob your energy. By exploring each room and picking up the special gems located within each, you can gain the temple gods favour and he then rewards you with a pin and a special power of some kind. For example, the Snake God rewards you with an immunity from snake bites – imperative ■ reaching later temples.

Brilliantly detailed and colourful sprites and backdrops supplement this absorbing formula of arcade action and strategy. The passing of time in the game means that night and day either complicate or ease your task. *Voodoo Nightmare* is represented as a 3D isometric impression. This causes complications with the control of the hero and this is the only major complaint with the game. To correctly control Boots you need to hold the joystick ■ an angle, screw up and he'll go everywhere but the direction you intended.

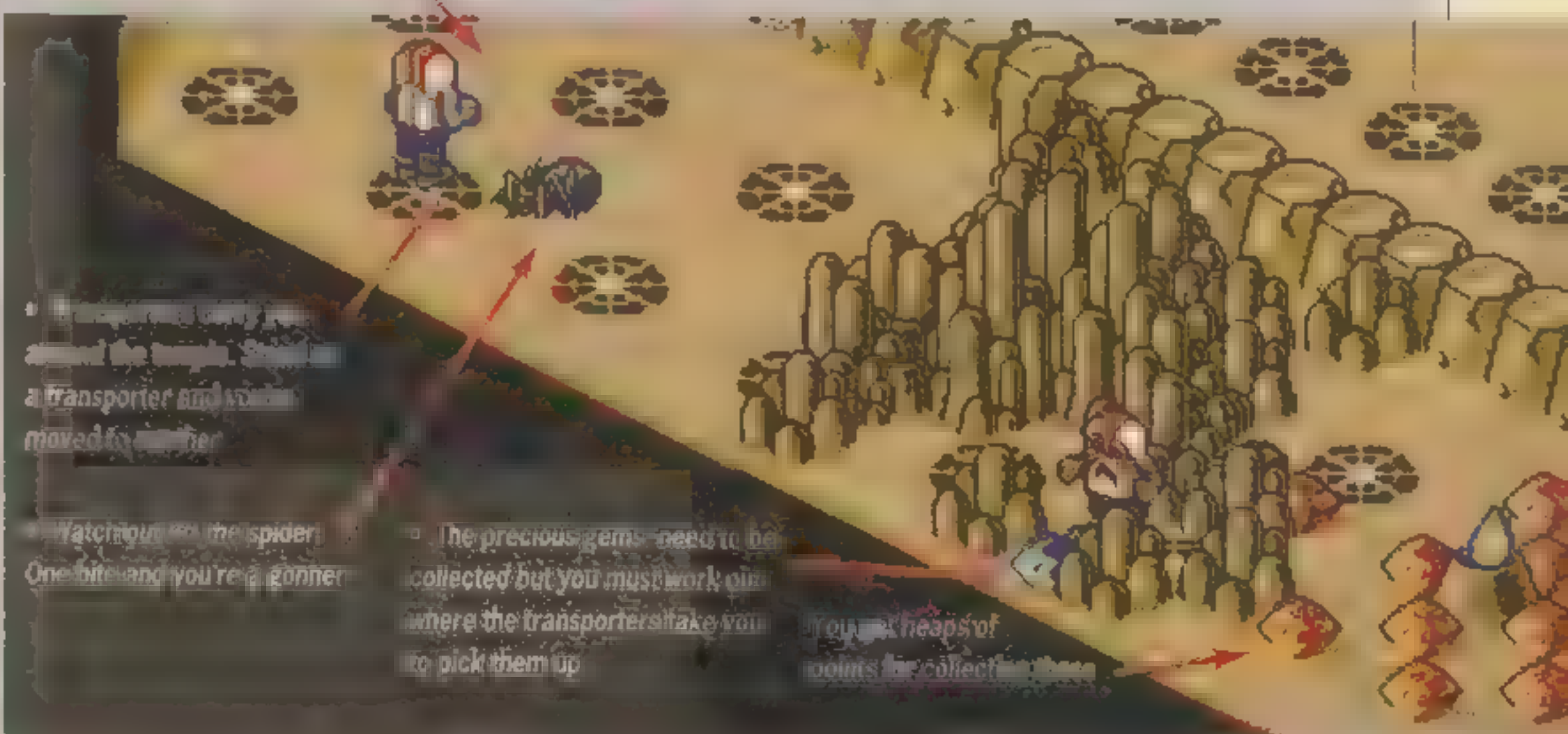
The scenario and style of the game is very unusual but this is *Voodoo Nightmare's* strength. If you're fed up of shoot-'em-ups and the myriad of arcade conversions due out for Christmas, *Voodoo Nightmare* could be just the break you're looking for.



• Black Magic, an African death mask and a jungle infested by lethal animals – *Voodoo Nightmare* is unlike anything else you've seen. The objective is to find an effigy of the neighbourhood witchdoctor, collect eight pins and ram them into the doll. Sounds like good quality, wholesome entertainment to me!



• Climb inside the temple if you want to collect a pin from the temple god. Just because you've managed to work your way past fearsome jungle beasts to locate the temple, don't imagine the hard work is over. Once inside you have giant spiders, transporters and precious gems to watch out for.



THE 16-BIT TOP TEN		
For the week ending October 1		
Game Name	Publisher	Platform
1. F19 Stealth Fighter	MICROPROSE	ST/Amiga/PC
2. Kick Off 2	LANCO	ST/Amiga
3. Treasure Island Dizzy	CODEMASTERS	ST/Amiga
4. Targhan	ACTION 16	ST/Amiga
5. Italia 1990	CODEMASTERS	ST/Amiga
6. Shadow Warriors	OCEAN	ST/Amiga
7. Guardian Angel	CODEMASTERS	ST/Amiga
8. Operation Stealth	US GOLD	ST/Amiga
9. Yogi's Great Escape	HITEC SOFTWARE	ST/Amiga
10. Shadow of the Beast	PSYGNOSIS	ST/Amiga
\$ = ATARI ST/Amiga, C = COMMODORE/Amiga, IBM PC OR COMPATIBLE		
Chart compiled by GALLUP. (c) European Leisure Software Publishers Association.		



# THE CONSOLE ZONE

Your weekly guide to console gaming with Richard Frederick.

## SEGA GAME GEAR

*Super Monaco GP* is one of the first releases on the new Sega Game Gear colour handheld console. This fast and furious racing-sim is packed with features including a choice of Grand Prix racetracks and a head-to-head simultaneous two-player link-up option. You can even customise your car with different engines and tires. *Super Monaco GP* costs 3500 yen (£14). The Game Gear is the latest handheld console to be released in Japan. It has a 3.2" (480x146 pixel display) colour screen which can display 16 colours on-screen out of a palette of 4096, four-channel stereo sound, optional TV tuner and costs 19800 yen (£79). Sega should release the sleek matt-black Game Gear in the UK early next year.



• Line up for action on the race track.

## NEC PC ENGINE

It seems to be getting easier in *GALAGA*: just hit the [Run] on the title screen for a longer game.

## GREAT GAMERS

Can you meet the Console Zone challenge? We're looking for the best video game players, and you're looking for fame. Send us your top scores on the latest games released on the Megadrive, Gameboy, NES, Game Gear, Sega Master, PC Engine, Lynx and Neo-Geo at: The Console Zone, New Computer Express, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW - or fax 0225 446019.

### GAMEBOY

<i>Batman</i>	424,060	Peter Worth
<i>QIX</i>	199,908	Peter Worth
<i>Super Mario Land</i>	331,860	Alex Taylor
<i>Tetris</i>	396,064	Peter Worth

### MEGADRIVE

<i>DJ Boy</i>	3,531,300	Alex Taylor
<i>Eswat</i>	277,900	Alex Taylor
<i>Final Blow</i>	2,525,040	Alex Taylor
<i>Forgotten Worlds</i>	653,900	Alex Taylor
<i>Ghouls 'N' Ghosts</i>	102,400	Alex Taylor
<i>Golden Axe</i>	414.5	Alex Taylor
<i>Super Shinobi</i>	1,968,500	Alex Taylor

## ZONE COMMENT

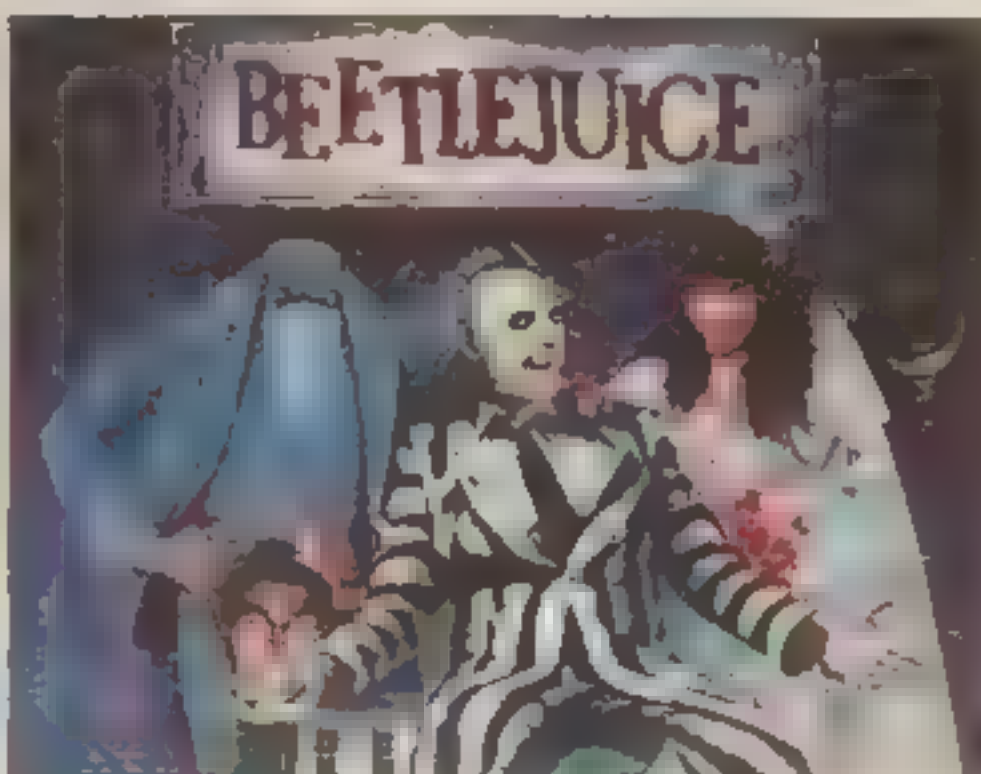
What do you think of the Nintendo NES and Atari Lynx adverts on TV? What are your favourite video games? Have you found any hidden features in your latest video game? Which computer games would you like converted to your console? We want your views connected with the current state of console gaming. Write without delay to the usual address.

## NINTENDO ENTERTAINMENT SYSTEM

That crazy spook *Beetlejuice* is about to appear on the NES thanks to LJN. The ghost with the most is now haunting consoles, his own cartoon series and even a breakfast cereal. That's America for you! The game is based around the movie, with you having to rid your house of unwanted guests. By the way, apparently eight million viewers watch the *Beetlejuice* TV cartoon show every week.

### PLAYING TIP

Get to the end of the game in *Code Name Viper* with this passcode: 217298



• Spiritual experience takes over with *Beetlejuice*.

## SEGA MASTER SYSTEM

For a few seconds, *Alien Syndrome* is invincible. Collect the mystery question mark when the countdown timer hits 272, 267, 232, 222, 171, 161, 131 or 121.

## SEGA MEGADRIVE

*Hellfire*, from NCS/Taoplan, is the latest horizontally-scrolling shoot'em-up to hit the Sega. But will it topple *Thunderforce III* from the Number One position of best Mega blast? *Hellfire* is a 4 Megabit cartridge featuring 6 levels, 10 game-continue options, and 4 player-selectable weapons. It costs 6800 yen (£27).

### PLAYING TIP

Get 25 wins in *Herzog Zwei* with the passcode: JAJBPDNMC

• *Hellfire* yet another shoot'em-up.

## NINTENDO GAMEBOY

Don't expose them to bright light. Don't get them wet. Don't feed them after midnight. Yes, those cute bundles of fur are back and causing even more trouble than before. *Gremlins 2* has been converted into a platform-orientated arcade adventure on the Gameboy (and NES) by Sunsoft - the company that brought us all those brilliant *Batman* games. Amazingly, the Gameboy version actually manages to look better than its NES cousin. *Gremlins 2* costs 3400 yen (£13) on Gameboy and 6500 yen (£26) on the NES.



• Vicious little cuties. The *Gremlins* are back.

### PLAYING TIP

Another *Teenage Mutant Ninja Turtles* tip courtesy of Damon Barwin from LM Software in Southend-on-Sea. Surely somebody else has a few Gameboy tips? Send them along to me at the usual address. Meanwhile: the first bonus game on the last level of the game can be found by jumping into the top left corner of the screen at the start of level five.

## NINTENDO SUPER FAMICOM

Irem, the leading Japanese arcade game company, is about to release its popular coin-op *R-Type II* shoot'em-up onto Nintendo's new 16-bit console. This hot little slice of silicon looks really sexy on the Super Famicom - and remember it was the original *R-Type* that helped shoot the PC Engine to fame three years ago. If you liked *R-Type*, you'll love *R-Type II*. The Super Famicom console will be launched in Japan at the end of November, priced at just 25000 yen (£100).

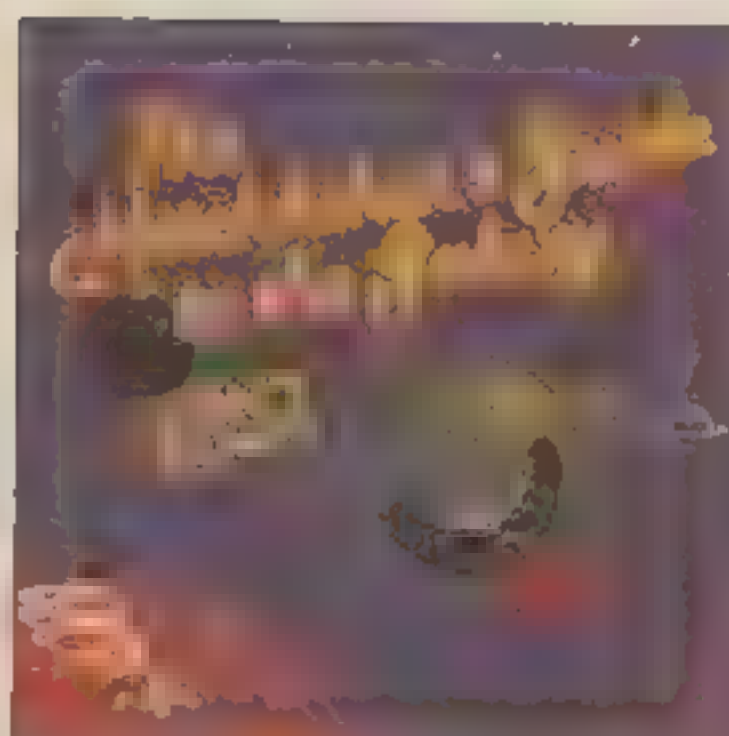




Nick NEVER GOT ANY chicks, until he bought those Infocom from Mastertronic GAMES



**NOW THE ONLY LIMIT IS YOUR IMAGINATION**  
Classic Infocom Interactive fiction is back  
– at an irresistible price.



**HITCHHIKERS GUIDE  
TO THE GALAXY -**

You play the role of hapless Arthur Dent in this mind-bogglingly hilarious story by the best-selling author Douglas Adams. You'll chortle while your planet is demolished, yelp with laughter when threatened by the Ravenous Bugblatter Beast of Traal and split your sides as you search the galaxy for a decent cup of tea.



**ZORK I -**

This phenomenally popular story plunges you into the extraordinary environs of the Great Underground Empire in search of incomparable treasures. You'll come face to face with outlandish creatures as you make an amazing odyssey with so many twists it can offer new surprises every time you explore it.



**PLANETFALL -**

In this sci-fi comedy, you're a stellar Patrol Ensign 7th class - as low as you can go. Then your luck takes a turn for the better. Your patrol ship explodes. True, the mysterious, deserted world to which you're jettisoned is plagued by floods, pestilence and a mutant Wild Kingdom, but you'll have Floyd, a mischievous robot, to help you find the secret to saving it.



**WISHBRINGER -**

You begin as an ordinary mail clerk delivering a mysterious random note and end up - magic stone in hand - embarking on a remarkable series of whimsical adventures. You'll need all the wishes that the stone will grant you, because your final destination is somewhere beyond your wildest dreams.



**LEATHER GODDESSES  
OF PHOBOS -**

You've been kidnapped by minions of the fiendish Leather Goddesses of Phobos who are plotting to turn the earth into their private pleasure palace. Succeed in escaping their clutches and you'll begin a naughty, bawdy and very amusing romp across the solar system. Your mission is to collect the materials you'll need to defeat the Leather Goddess and save humanity from their dastardly plan.

**AVAILABLE on  
PC, Amiga & ST  
£9.99**

For Further Information  
please contact:  
CUSTOMER SERVICES  
VIRGIN MASTERTRONIC LTD  
16 PORTLAND ROAD  
LONDON W11 2LA  
TEL: 071-727-8070

**INFOCOM  
FROM  
MASTERTRONIC**

© Virgin Mastertronic Ltd 1990  
© Activision 1990



The proliferation of the graphical user interface (GUI) has resulted in many changes in the way we deal with computers. The old text-based, keyboard-oriented command line of MS-DOS, Unix and the mainframe tradition has been replaced by the windows, icons, pull-downs and mouse of the WIMP environment. The changing face of the microcomputer has led to many prettier versions of conventional computer programs, such as WYSIWYG (what you see is what you get) word processors and graphical spreadsheets like *Excel* and *Wingz*. However, it has not been seen as a spur to developing new software which would not be able to exist on the older, text-mode screens.

One exception to this trend has been desktop publishing (DTP). Without the Apple Macintosh's GUI, there would have been no *PageMaker* – and without *PageMaker*, the current rash of page-layout programs would almost certainly not exist. When it began, desktop publishing was a brand new type of application – it combined traditional disciplines of text processing and graphical manipulation, but the whole was definitely greater than the sum of its parts.

*Thinx*, from Bell Atlantic, is another exception to the rule. It is a brand new product in that it has only just been launched in the States (with UK distribution to follow) but it is also new in that it does things which no previous application has been able to do, thanks to the *Windows 3* GUI.

With *Thinx*, you can move graphical objects around the PC screen. Each object has an associated table of data and relationships between the different items of data are established as the objects are grouped together. Spreadsheet-like formulae can then be used to extract summary information.

### ORGANISATION

For an example of how this might work, consider the standard tree-structured organisation chart: the MD at the top and

# WHAT YOU SEE WHAT YOU GET

Mike Hardaker looks at *Thinx*, a database that uses pictures. Or is that a graphics program which manipulates data?

the lines of reporting passing down through the executives, the middle-managers and so on.

With *Thinx*, you would draw up the organisation chart in the conventional way, but then you could then associate data with each employee's 'object' (typically a simple rectangle, although photographs could easily be scanned in and then imported to the program). For example, if this data included salary information it would be easy to set up formulae which showed the salary bill for each manager's team. Moving a sales executive from the northern sales team to the London area – by dragging the object into a different area of the screen – would then automatically change the salary bills for both the northern and London sales managers.

While this is handy for actual changes of personnel – providing instant management information in a visual form – its real strength comes from the ability to perform spreadsheet-like 'what if?' calculations. What will happen to the salary budget if three new sales staff are

employed in the north? Adding three sales 'objects' to the appropriate place on the display provides an instant answer. Of course, this can be done using a spreadsheet, but in a far less intuitive way (thanks to the somewhat austere nature of a table of figures).

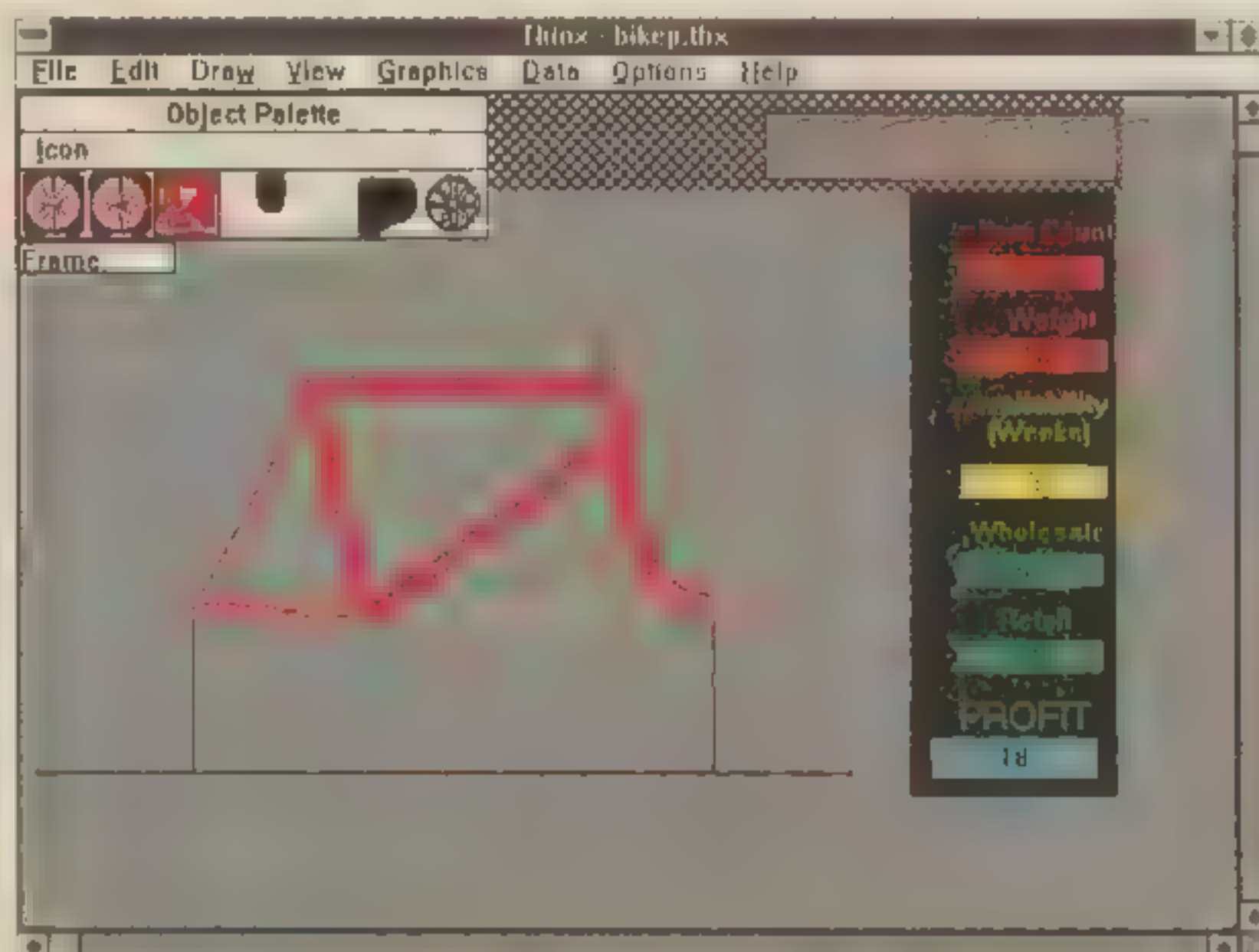
Furthermore, the personnel implications of any change can be seen straight away if *Thinx* is used: does the addition of the three extra people give the sales manager a team which is uncomfortably large? Is the office big enough to take three extra desks? Are there enough facilities in the building to satisfy health and safety regulations if the sales team goes up in size? Assuming the right data is associated with the objects, these questions can all be resolved at once.

### IN USE

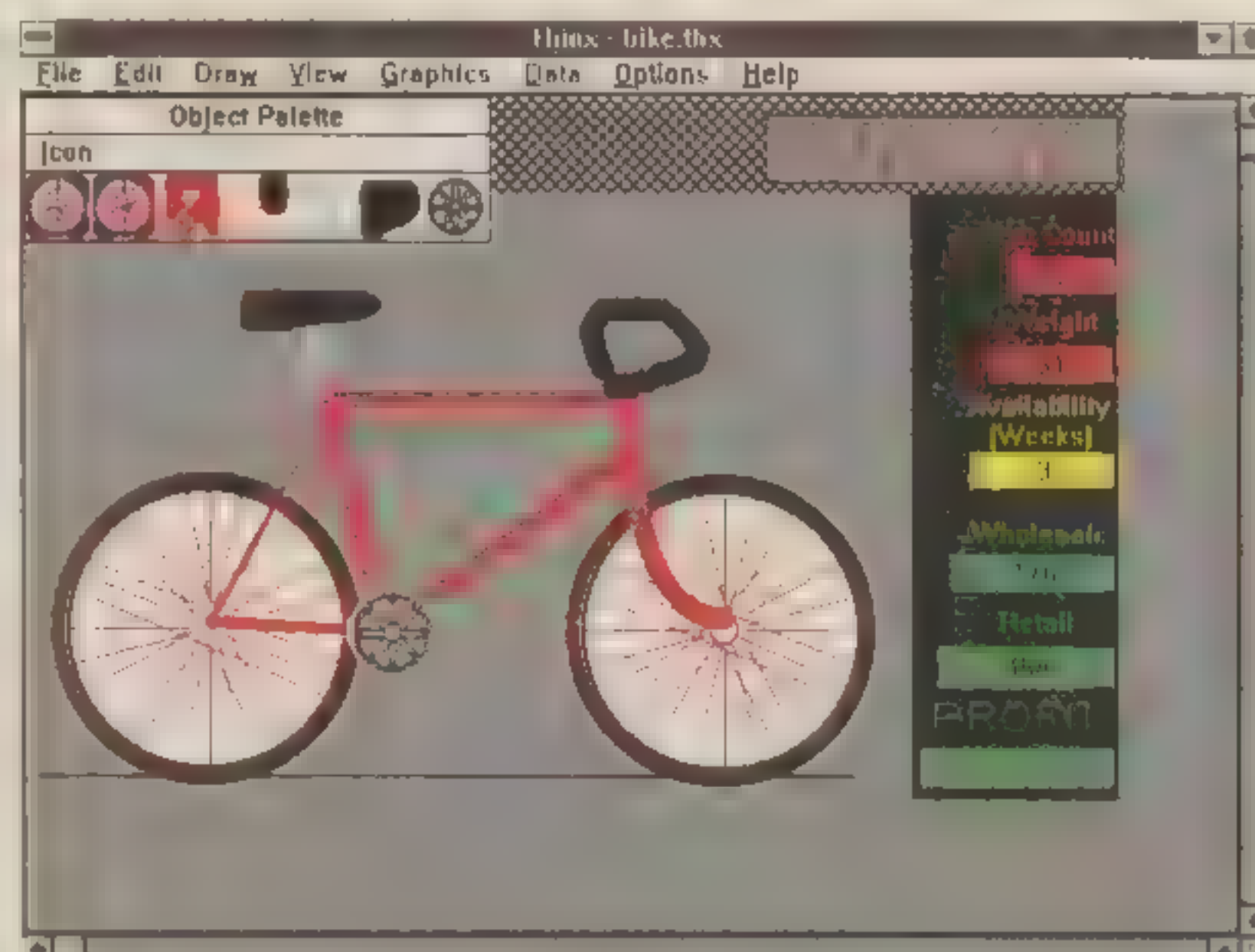
With a spreadsheet, it is possible to take a blank worksheet, bash in a few numbers and perform some simple calculations. *Thinx* doesn't have this ability – it is primarily a tool for developing applications which will then be used repeatedly.

Building a *Thinx* application begins with designing the graphical objects. This involves using a *Micrografx Designer* like a set of drawing tools. As the program uses vector rather than raster (or bitmapped) graphics, the final results are infinitely scaleable, while retaining their original resolution – something which makes it easy to draw complex images at a large scale and then shrink them. Once the images are drawn, coloured and scaled, they are turned into objects, a process which involves taking the disparate, editable mass of lines and shapes which makes up a picture and turning them into a single, unchangeable item. These objects are then made into icons as part of an on-screen toolbox and by clicking on an item it is possible to duplicate objects on the display.

The next stage is associating data with each of the objects. The most straightforward way of doing this is to type the information in manually, using the data-entry forms provided. However, *Thinx* can also take 1-2-3, *Excel* and



• The objects which make up a racing bike have been created, together with the data which defines such elements as the price and delivery time of each element. Here, only the frame has been added.



• The complete bicycle has been 'built' and the total price, and delivery time of the latest item can be seen (together with such little items as the retailer's profit). Working out the cost visually makes it hard to forget such items as the saddle.



# THE IS GET

dBASE data directly, so if you already have the data in a spreadsheet or database the odds are you will be able to import it. As an added bonus, *Thinx* supports Windows 3's DDE (Dynamic Data Exchange) which allows 'hot links' to be established between an *Excel* spreadsheet - for example - and a *Thinx* database. So if the spreadsheet is updated *Thinx* changes (and vice versa).

Finally, formulae are written to establish the links between the different objects. Then all you have to do - to quote the program's packaging - is draw your own conclusions.

## WHO NEEDS IT?

*Thinx* is useful for those who need to manipulate images and data and are currently using two or three programs to do so. A landscape architect, for example, will draw a garden plan with a drawing package and then list the plants in a spreadsheet in order to come up with a price quotation. Using *Thinx*, it is possible to combine the two processes, adding the ability to do 'what if?' work - will the project go over budget if a couple of cypresses are planted by the patio, and is there room for them? A magazine could draw out a 'flatplan' of an issue's pages, associating each editorial page

with a data file including commissioning information, deadlines, artists' notes and so on, while the advertising department's sales team would have a similar flatplan but with total revenue and page-yield data visible.

*Thinx* also has uses for people who would prefer to work with a visual rather than a text-based system. This can be easier to understand and also reduce errors. For example, a computer network manager could find it helpful to work primarily with a visual representation of the network. The data associated with the objects would then give the cost of the items, the delivery times and so on. By drawing the network it is easier to make sure that the elements are ordered - including such easily forgettable items as cables - and the logical interdependencies can be seen at a glance (something none too easy with a spreadsheet).

*Thinx* is the first of a new type of visual database, but it probably won't be the last. From the retired colonel who explains past military triumphs by shoving pepper-pots and crudites around the table, to the programmer who starts out with a flow-chart, many of us find it easier to understand relationships in a visual context. Modern microcomputers have the ability to combine the visual with the textual - but why has it taken the software houses so long to come up with a product to exploit that ability?

## PRODUCT FACTS

*Thinx* is available from Bell Atlantic Corp and costs \$495.

Contact 010 1 304-284 1370.

Technical support will be provided from the US until UK distribution is established.

The product requires a hard disk PC-AT (286-based or higher) with Windows 3.

# COMPUTER EXPRESS

Britain's biggest selling computer weekly, packed with the latest news, reviews and technical tips for **your machine.**

# SAVE OVER £6

off the news-stand price when  
you take out a subscription to  
New Computer Express today!

LIMITED OFFER  
APPLY TODAY!

# 54 issues for only £31.35

or to put it another way...  
get your copy of NCE delivered to your  
door for the old price of just 58p a copy!

To take advantage of this extra special offer, complete the coupon below and return it immediately or, better still... telephone our credit card hotline right now on 0458 74011 to book your guaranteed copy every week.

Please enter my subscription to New Computer Express at the special discount rate ticked below.

☐ UK - 54 issues - £31.35

☐ Europe - 54 issues - £63.75

☐ Rest of World - 54 issues - £89.15

N.B. All overseas subs are sent by Airmail for speed and safety.

Please make cheques/PO payable to Future Publishing Ltd and send with this coupon to:  
**NEW COMPUTER EXPRESS, FREEPOST, SOMERTON, TA11 7BR.**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_

Tel: \_\_\_\_\_

I wish to pay by (please tick as appropriate)

☐ Access

☐ Visa

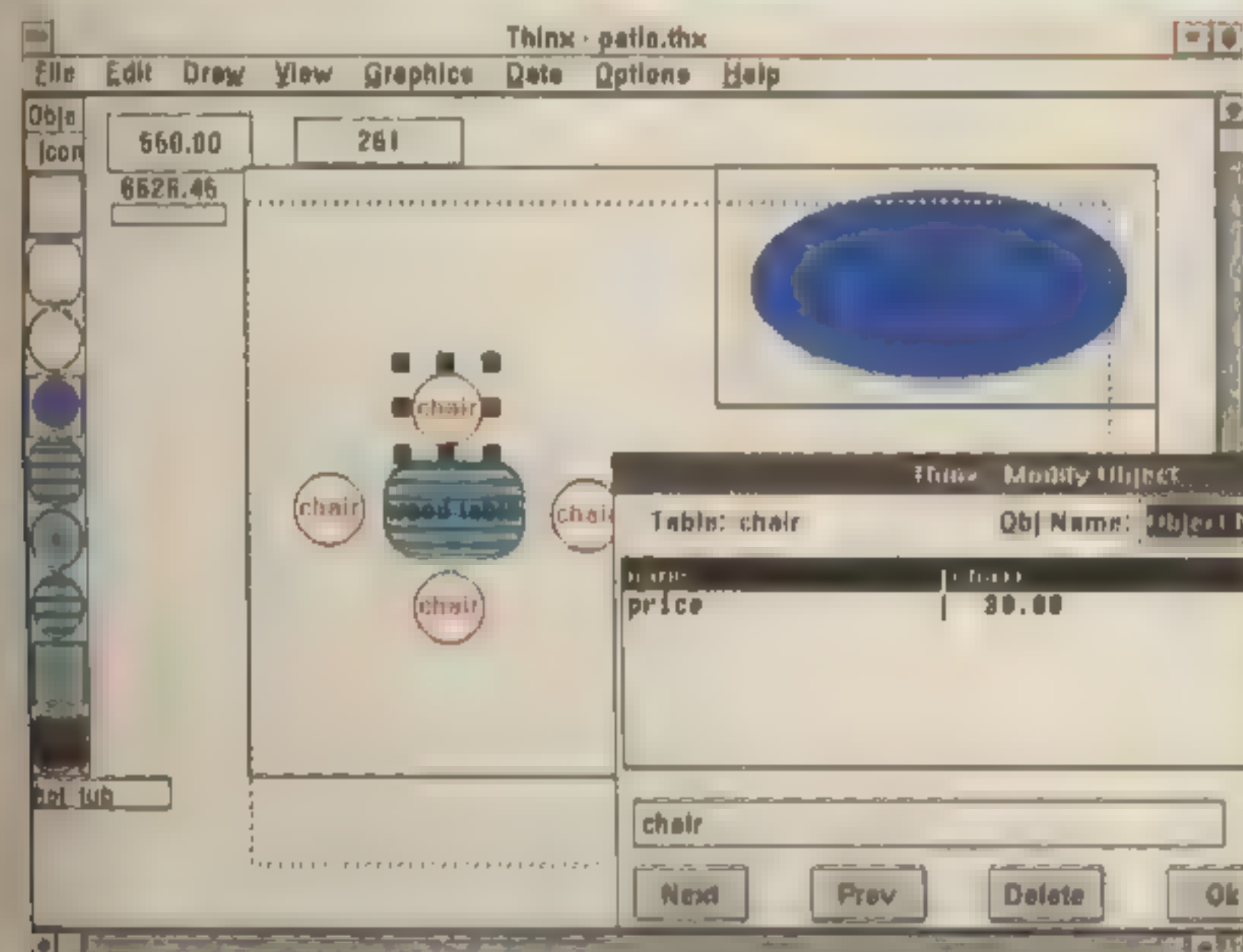
☐ Cheque

☐ PO

Card No: \_\_\_\_\_

Expiry date: \_\_\_\_\_

NCE/SP/1190



• Designing a patio with *Thinx* is a straightforward process - here some of the key elements have been added, with the total bill visible at the top left. The bottom right shows one of the data tables associated with an object - a chair in this instance.



# SAMSUNG 286-12Mhz (SPC6512) ONLY 750.00

## PRICE INCLUDES

40 Meg Hard Disk  
Unisys Mono VGA Monitor  
VGA Card (for above)  
102 Key Keyboard  
1 Serial / 1 Parallel Port  
1 Meg RAM on board  
Dos 3.3 & GW - Basic

## ADD-ON OPTIONS (please Add)

VGA Colour Monitor	200
Super VGA Colour Monitor	250
1.44 Meg 3.5" Floppy Drive	50
A4 Handy Scanner	125
A4 Mouse	30
Microsoft Windows 286	45

(All Prices Exclude VAT & Delivery)

# DOUBLE COMPUTING

269 Bury New Rd.  
Whitefield  
Manchester  
M25 6QQ Tel. 061-766 3417

We also supply a full range of computer Accessories and Peripherals

## Desktop Publishing Christmas Bargains



### AVAGIO - SAVE £40

Professional DTP software for 286 & 386 PC's  
Full control over fonts scaleable from 6 to 500 point.  
Exceptional control over graphics. Amazing output on  
dot matrix, ink jet and lasers. PostScript not needed.  
Normally £224.25 inc VAT Offer price £184.25 inc VAT

### NewsMaster 2 - SAVE £20

Probably the most popular DTP package ever. Simple to  
use. 35 fonts, 250 graphics. Dot matrix, ink jet and HP  
laser support. Ideal first DTP package

Normally £69 inc VAT Offer price £49 inc VAT

### PrintMaster Plus - SAVE £10

Banners, Notices, Greeting Cards, Calendars, Stationery  
10 fonts in 5 textures, 110 graphics. Smoothed printing.

Normally £46 inc VAT Offer Price £36 inc VAT

### Other Products:

NewsMaster and PrintMaster Graphics, PrintMaster  
Fonts and Borders, NewsMaster Tech Guide and Mouse  
Support. .PCX graphics. Logitech scanner £169 inc VAT

### DTP Systems - Treat Yourself This Christmas

286 VGA PC 40Mb, 1.5Mb HP laser, DTP software,  
Logitech scanner, paint software £1,999 + VAT  
286 PC or HP laser with DTP software from £995 + VAT

## Scaleable Fonts For Windows 3

Scaleable fonts for Windows 2 & 3 applications  
and for Word, WordPerfect, Ventura, Avagio

*Hancock Forte* Indio Hemet

*Quincy Klang Old German Script*

Improved print quality and screen appearance

Powerpak gives access to over 60 fonts fully scaleable from 4  
to 1000 point (depending upon application), overcomes  
printer font size limitations and gives improved print quality  
on dot matrix and laser printers. Create smooth screen fonts  
for Windows. No extra commands to learn. Saves space over  
other font packages. Powerpak comes with three scaleable  
fonts (Times, Helvetica, Courier equivalents), many extra  
fonts available.

**Powerpak £79 + VAT Extra fonts from £10 each**  
**\* Buy before 31/12/90 and get 3 extra fonts free \***

State version required when ordering, e.g. Windows or Word  
Fonts can be used with Avagio without Powerpak.

All offers open until 31/12/90. Carriage: £2 software,  
£5 scanners, £20 PC systems. Access/Visa accepted.

**LTS, Haydon House, Alcester Road, Studley,  
Warks B80 7AN Tel: 0386 792617**



# WIN 3 GREAT PRIZES IN THIS ALL NEW COMPETITION

## WIN

### AMIGA 500

FLIGHT OF FANTASY  
PACK & PHILIPS 8833  
COLOUR MONITOR

## WIN

### £1,000

WORTH OF SOFTWARE  
OF YOUR CHOICE

## WIN

### HYUNDAI PC

IBM COMPATIBLE PC  
COMPLETE WITH MONO  
MONITOR

**THESE THREE SUPERB PRIZES MUST BE WON!!**

**Closing date 30th November; winners will be announced in issue 110 of NCE  
PLUS**

**EVERY ENTRANT RECEIVES A FREE GAMES SOFTWARE PACKAGE  
CHOOSE ONE OF THE FOLLOWING TITLES:**

KICK OFF  
STAR WARS TRILOGY  
BARBARIAN  
SAINT AND GREAVSIE  
PORSCHE TURBO CUP  
LOST DUTCHMANS MINE  
CLOUD KINGDOMS  
SUPER SKI CHALLENGE  
VINDICATORS

VOYAGER  
KID GLOVES  
COLORADO  
COMMANDOS  
TRACK SUIT MANAGER  
WANTED  
BAD COMPANY  
CHAMPIONSHIP WATER SKI

BRIAN CLOUGH FOOTBALL  
TRIVIAL PURSUIT  
HOLE IN ONE GOLF  
ALIEN LEGION  
GENIUS  
LASER SQUAD  
BUFFALO BILL'S RODEO GAMES  
OBLITERATOR

**To enter, just circle the correct answers to these questions**

- |  |   |   |  |  |
|--|---|---|--|--|
| Which game does NOT involve shooting aliens? | 2) Which of these is an adventure game? | 3) Where does the word Amiga originate? | 4) Which of these is a software house? | 5) How many bytes are there in 1 Kilobyte? |
| A) Xenon II                                  | A) Rick Dangerous                       | A) Huddersfield                         | A) Microprose                          | A) 1000                                    |
| B) Outrun                                    | B) Atomix                               | B) Spain                                | B) Microscope                          | B) 1128                                    |
| C) Gemini Wing                               | C) Jinxter                              | C) Italy                                | C) Micromedia                          | C) 1024                                    |

**AND RETURN ENCLOSING CHEQUE OR POSTAL ORDER TO THE VALUE OF JUST £10.00 MADE PAYABLE TO  
COLIN SMITH ENTERPRISES, 338 RAKE LANE, CLIFTON, SWINTON, MANCHESTER. M27 2LJ**

**PLEASE COMPLETE IN BLOCK CAPITALS:**

PLEASE STATE GAME FORMAT .....

NAME .....

NAME OF PREFERRED FREE GAME .....

ADDRESS .....

PLEASE STATE PREFERRED MAIN PRIZE .....

Tie breaker (complete in five words or less)

I think the title for the ultimate arcade game of all time should be:

POST CODE ..... TEL. No. ....

**COMPETITION ENTRY FEE ONLY £10.00**



# TECH TIPS



Does your PC keep packing up? Is your Amiga less than friendly? Would your ST try the patience of a saint? Write to Keith Pommer's Tech Tips and we'll soon see you right. Send your sorry stories to Tech Tips, Beauford Place, 30 Monmouth Street, Bath BA1 2BW.

## ■ TAKE THAT! Bounder

You published my previous letter criticising your blinkered Amiga-loving responses to letters back in issue 99. Although I had not intended to, considering your subsequent response to this letter, I feel I have to answer, and hope you will once again publish my own opinions, in the assumption you **do** not consider your own point of view to **be** the only one **in** which your readers should be exposed.

Firstly, I would like **to** correct your rather strategic error in the reproduction of my letter, by replacing Amiga in the statement, "the ST is an excellent all-round machine with a higher quality of serious software." I trust this was an honest mistake.

Your comment that my "research is patchy" quoting the Amiga's oh so wonderful dedicated chip set, is a rather worrying claim. I take it you are aware of the purpose **of** these custom chips. They are graphics and sound orientated, things which, as my original article was stressing, are not relevant to a serious machine. Using your rather dubious logic, we should all **go** out and buy Nintendo Super FamiCom machines.

On the same page, you claim the Amiga to be a far superior DTP machine too because of a new Amiga-based publication. Well, the ST also is about to have a new magazine, called *ST Applications*, an evolutionary progression from the *ST Club* newsletter. And yes, **it** produced on an ST! I have seen Amiga DTP packages and they are generally of a high quality. But so too are the ST counterparts,

such as *Calamus*, *Timeworks*, *Pagestream* and *Fleet Street Publisher*. In my opinion, the opposite is true. The ST is a far more suitable machine.

I suggest that in future you **try** to give a rather more unbiased opinion. The standard response of "buy an Amiga" despite the application is rather a questionable one. I still consider the ST to be a better all round machine. The Amiga is prettier, but this isn't the same as more useful. If I only wanted games, I'd buy a console. If, however, I need a reliable, multi-purpose machine, then, for me, it has to **be** the ST.

Lee H Fuller, Canterbury.

I'm not the Amigaphile that you paint me and my challenge to the ST magazine DTPublishers of this world was taken up with gusto. As ever, I stand by what I said and still believe that the Amiga is a fine DTP machine. We are both entitled to an opinion, but the scales of proof are as you say, tipping toward the ST.

Many affronted readers of ST initiated news sheets, fanzines and magazines were quick to point out their fancies. The icing on the cake was a recent trip to the Soviet Union. A Polish journalist showed me a commercially produced computer magazine produced on STs using *Calamus*. The magazine (*Computer*) is produced in colour and there are both Polish and Russian language versions. Compared with UK magazines they look a little dull, but that is mainly due

to the paper and print quality. The magazine shows that *Calamus* is indeed a commercial quality DTP package.

• Watch *Express* for further news on life, computing and publishing in the Eastern Bloc.

## ■ HELP! NTSC sampler

In issue 98 of *NCE* the Amiga column contained news of a 16-bit sampler card, *Audiolink*, from Beta Unlimited.

As it is not yet available in the UK I was wondering if the American version would work on a British A500.

Mike Archer, Blackpool.

In theory, it's only the display and mains power that varies across the Atlantic. Programs designed for the US NTSC standard have only 525 lines instead of the more familiar 625 lines of the UK PAL standard. Many zillions of US programs happily run on UK machines with a shorter display on the screen. US peripherals are normally OK to run on UK machines. The problem generally only comes with power supply. In the US the mains voltage is a gentle and much safer 110/120V AC at 60 cycles. In the UK we use the turbo 240V AC at 50 cycles. Obviously any mains-driven peripheral or add-on will need to be transformed, but if you're going to invest a decent amount, check with the supplier that it will work with your kit.

A hurried promise from a supplier that they'll change it if it doesn't work will be small consolation if some incompatibility **in** the product has done a nasty to your machine. Be warned.

Back to your original question, we haven't had the 16-bit sampler in to review yet, so I cannot (and will not) speculate on its compatibility. As soon as it arrives we'll be going into Stock Aitken and Waterman mode and you'll get a full featured review of this whizzy product

## ■ HELP! Power points

I am using an Atari ST with monitor, printer and second disk drive. These are all connected to a four way extension cable. To save switching on and off the four items every time I come to use the computer, I leave them all switched on at the machines

and just switch on/off at the mains plug. **Is** this likely to do any harm?

Robin Wadell, Peebles.

I know several people who subscribe to your 'one switch at the mains' policy of powering up and down. They all swear by it and proclaim loudly that they have been doing it for several hundred years since they were babes in arms without any problems.

To put it in perspective, if something is terribly bad at the mains, you are inviting 240 volts at 50 cycles to come and play repair bills with all four of your pieces of kit. Surely flicking four switches isn't too great a task? **Old** machines were made to be switched on and off at the mains, there'd be no need to put a switch on them at all. This being the case, I'm sure the manufacturers would have made this saving before now. With every component costed to a tenth of a penny, if it was feasible to run without mains switches they would be extinct.

Let your finger do the walking and switch on all of your bits of kit individually.

## ■ OUCH! Still waiting

Having read your article on re-inking printer ribbons in issue 85 and your comments in reply to a complaint on your Tech Tips page in issue 93 I thought **all** the problems with WACCI would have been resolved.

Not so. I sent a cheque off dated 3 September and have not heard a word since. At least they have not cashed my cheque.

What is happening? If I ran my business on similar lines I would be on the dole by now. Does WACCI really exist? Perhaps there is a clue in the name. Please use your influence to promote some action. Dave Cadman, Derby.

I eventually managed to speak to Steve at WACCI about the delays on orders. Rather than telephone him, I turned up in person to inspect the operation. WACCI is still working in fine order producing a monthly magazine and supplying the various twidgets and peripherals.

It seems that because I (and a couple of other journos) sung WACCI's

## ■ HELP! Amiga Scart

Could you tell me how to do the following:

I'm using the Minigen Genlock with my Amiga 500. But I'm getting a poor signal on my TV. I would like to use it with my Philips 8832 Monitor, but it doesn't have a cubs socket.

Is it possible to wire up a SCART lead to do the same job? If so, how?  
S Howard, Peace Haven, East Sussex.

We covered the Amiga SCART lead in full detail in *Circuit City* a few weeks back so you'll have to contact our back issues and subs department to get the full unexpurgated tale. Or you could take your A500 manual and look up the pin outs for the 23 pin video connector. Buy a SCART plug from Tandy (this has the pin out diagram on the packaging. Red to Red, Blue to Blue, Green to Green, Ground (Earth) to Ground and Sync to Sync. Add a modicum of patience, a blob of solder and a couple of hours cursing and the job **is** done.



★ POCKET SIZED ★ PC-COMPATIBLE ★ PERSONAL ORGANISER ★



# ATARI Portfolio

## THE PC IN YOUR POCKET

The new Portfolio from Atari is the world's first pocket-sized electronic organiser that is also a powerful PC compatible computer, with a full QWERTY keyboard and scrolling 80x25 character display.

Portfolio includes everything you would expect from an electronic organiser - an address and telephone book, time manager, diary and sophisticated calculator.

Portfolio also includes several functions that you would not expect - a spreadsheet for your personal budget and expense records, as well as a text processor for typing memos and letters.

And, because Atari's Portfolio is PC compatible, it can communicate with your desktop PC at home, or in the office. You can transfer files from one to the other, to enable you to update your reports and figures with the Portfolio while you are on the move.

FOR ONLY **£199** INC VAT

### SPECIFICATION

- **Processor:** Intel 80C88 at 4.9152Mhz
- **Operating System:** Compatible with MS-DOS 2.11.
- **Internal ROM:** 256K containing BIOS, operating system and applications suite.
- **RAM:** 128K with an internal RAM disk, configurable from 8K. Externally expandable to 640K RAM.
- **Keyboard:** 63 keys, QWERTY, IBM PC BIOS compatible. Built-in numeric pad and function keys. Optional key click.
- **Character Set:** Extended IBM ASCII (255 characters).
- **Mass Storage:** credit card sized memory cards (32K or 64K or 128K RAM).
- **Display:** Graphics LCD, super-twist technology, MDA compatible, 40 columns x 8 lines, 240 x 320 pixels (with the option to window a full 80 x 25 character display). Keyboard controlled contrast.
- **Peripherals:** 60 pin expansion BUS to take serial and parallel ports and memory expansion units.
- **Size:** 11.5 x 4.5 x 1.5 (290mm x 105mm x 29mm).
- **Weight:** 495 grammes (with batteries).
- **Applications:** calendar and diary, address and phone book, Lotus 1-2-3 compatible spreadsheet, text processor, communications software.

## 5 BUILT-IN APPLICATIONS! TO GET YOU ORGANISED!

To get you started Portfolio comes with a suite of five useful functions built-in, all accessible from a simple menu display.

### TIME MANAGER

More than just an electronic diary, the Portfolio Time Manager enables you to plan your appointments via a comprehensive calendar and diary. It can even be programmed to sound an audible alarm at specific times to remind you of important appointments.

### CALCULATOR

Your Portfolio will be invaluable in the office or at home as a powerful pocket calculator. It has a full range of functions, including fractional,

power and root calculations, all with multi display formats and memories.

### ADDRESS BOOK & DIALLER

Portfolio has a complete address book facility that allows you to store hundreds of addresses and phone numbers. And, at the touch of a button, you can retrieve any one of them, or search for a specific grouping, such as 'Italian restaurants'. And, when you are ready to book your table, hold your Portfolio to your telephone mouthpiece and use its special built-in tone dialler to dial the number for you.

### TEXT PROCESSOR

The Portfolio's built-in text processor program

includes word wrap, line and column count, string search, in fact most of the functions you would find in a word processor. It handles printer and word processor control codes and allows easy transfer of files between Portfolio and your desktop PC.

### SPREADSHEET

For real calculating power, Portfolio has a Lotus 1-2-3 compatible spreadsheet built-in. It has 127 columns x 225 rows and reads/writes Lotus V1.0 and V2.01 files, so you can transfer data to and from Lotus 1-2-3 on your desktop PC. The Portfolio's 256K ROM includes MS-DOS and PC BIOS compatible systems software.

### COMING SOON!

In addition to the excellent software built-in to the Portfolio Free of Charge (see right), other software and peripheral products, such as the sophisticated Pocket Finance package and serial/centronics interfaces are available. And it doesn't stop there. Many manufacturers have recognised the potential of the Portfolio and have already started to design new peripherals and software. Products currently under development include: Serial interface with built-in mini modem, Apple Macintosh interface, business, utility and programming software plus a range of adventure and battle strategy games. For further free details on the Portfolio range, fill in the coupon below and return it to Silica Systems now.



### MEMORY CARDS

Portfolio can store and retrieve data and programs from its own RAM, or from small credit card size memory cards, that slot into its built-in card drive. The cards are available in three sizes: 32K, 64K and 128K, so you can carry a library of data in your pocket. The card drive also accepts ROM cards, which can contain commercial or custom software.



### POWER SUPPLY

Portfolio is powered by three AA batteries which will run for up to six weeks with normal use, or from the mains using an adaptor. All the peripherals take their power from the Portfolio, so no extra batteries or adaptors are required. A 'battery-low' warning and memory back-up ensure that information is not lost when the batteries are changed.



### INTERFACES & PERIPHERALS

Portfolio can communicate with other computers and supports a growing range of peripherals via a built-in 60 pin bus connector. Peripherals available include serial and parallel interfaces and memory expanders (to 640K). You can also add a card drive to your desktop PC, to enable it to read/write to Portfolio's cards.

## SILICA SYSTEMS OFFER YOU

**FREE OVERNIGHT COURIER DELIVERY:** On all hardware orders shipped in the UK.  
**TECHNICAL SUPPORT HELPLINE:** Team of Atari technical experts at your service.  
**PRICE MATCH:** We normally match competitors on a 'Same product - Same price' basis.  
**ESTABLISHED 12 YEARS:** Proven track record in professional computer sales.  
**£13M TURNOVER (with 60 staff):** Solid and reliable with maintained growth.  
**BUSINESS/EDUCATION/GOVERNMENT:** Volume discounts available for large orders.  
**SHOWROOMS:** Demonstration and training facilities at our London & Sidcup branches.  
**THE FULL STOCK RANGE:** All of your Atari PC requirements from one supplier.  
**FREE CATALOGUES:** Will be mailed to you with offers and software/peripheral details.  
**PAYMENT:** By cash, cheque and all major credit cards.  
**CREDIT PAYMENT TERMS:** Silica is licensed credit brokers - details on request.

Before you decide when to buy your new Atari Portfolio, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your Portfolio, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new Portfolio products? Silica Systems, we ensure that you will have nothing to worry about. Silica Systems is a new division of Silica Shop, the UK's leading Atari specialists. This new division has been established to provide a service to the more serious home user, as well as to business and education purchasers. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers' requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now, for our latest Free Literature and begin to experience the 'Silica Systems Service'.

**SILICA SYSTEMS**

<b>MAIL ORDER:</b>	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	Tel: 081-309 1111
Order Lines Open	Mon-Sat 9:00am-6:00pm	No Late Night Opening
<b>LONDON SHOP:</b>	52 Tottenham Court Road, London, W1P 0BA	Tel: 071-580 4000
Opening Hours	Mon-Sat 9:30am-6:00pm	Late Night: Thursday until 6pm
<b>SIDCUP SHOP:</b>	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	Tel: 081-302 8811
Opening Hours	Mon-Sat 9:00am-5:30pm	Late Night: Friday until 7pm
<b>BUSINESS/EDUCATION:</b>	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	Tel: 081-308 0888
Order Lines Open	Mon-Fri 9:00am-6:00pm	Closed on Saturdays

To Silica Systems Ltd, Dept NCE-1190 38 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

### PLEASE SEND INFORMATION ON PORTFOLIO

Mr/Ms/Ms: ..... Initials: ..... Surname: .....

Address: .....

Postcode: .....

Tel (Home): ..... Tel (Work): .....

Company Name: .....

Which computer(s), if any, do you own? .....

E&OE - Advertised prices and specifications may change - please return the coupon for the latest information.



praises at about the same time, we created a demand that outstripped capacity.

Everything at WACCI Towers is in order and is being dealt with chronologically. Plans are already underway to streamline the mail order operation. WACCI started as a CPC user group and would have remained a tidy fanzine were it not for the efforts of founder Jeff Walker and current Oberlieutenant Steve Williams. In short it is a victim of its own success.

WACCI is on 081-898 1090.

### ■ HELP! BBC TV

I am intending to buy a BBC A3000 soon. What sort of monitor do you suggest I should get with it?

I would quite like one which could receive TV pictures on it, such as the Philips Model 2530 I have seen advertised. However, a friend has told me that as a monitor it has poor quality.

So is it possible to buy for a reasonable price a TV/monitor which does not sacrifice monitor quality? If so, which one would you suggest, or should I buy a dedicated monitor like the Cub3000? Jeremy Benson, Bedford

I would suggest (or maybe even insist) the Cub 3000 from Microvitec. I reviewed this monitor for *Express* a couple of months ago and for the money it was the best A3000 display option available. Picture was on the high side of medium resolution and the build quality was almost military. A couple of qualms about the sighting of the controls were minor hassles and the quality of the monitor with its integral audio channel and speakers was fine. If you use a TV as a monitor, or for that matter a TV monitor you will be in the realms of compromise. The elegant solution is a TV modulator box (scan the ads for companies that do these).

This is a device that connects to a TV aerial and takes the RF modulated signal of a TV channel and turns it into the familiar RGB stuff used to drive monitors. You should check that it's compatible with your monitor before you connect it. This way you have a good display resolution and a crisp sharp picture of Des and Jane when you tune into ... Neighbours, Everybody needs good ...

### ■ HELP! C64 Host

I am hoping to start a BBS on my Commodore C64 some time next year, but first I need a RS232 interface with software and leads.

I have tried many computer shops in my area with no luck. I cannot afford to pay much more than £30.

Just in case no-one can help, could you give me any information on where I could get the RS232 interface and software.

I would also like to know whether Commodore do a hard drive for the C64. I

know that the BBS software I have can handle two drives, but a hard drive can hold a lot more data. How much would a hard drive cost and from where can I get one?

S Morgans, Bexley.

You could give the chaps at Datal a ring. They seem to be able to run to ground just about every peripheral for every machine. Their catalogue of bitties is too big to reproduce on a Tech Tip page, but you could ring their Customer Technical line on 0782 744324 for more information.

If you want to chance your arm on a piece of previously used kit, you could do worse than to scan the Reader Ads in *Express* for the interface that you require. Alternatively you could place your own ad in the wanted section. Commodore don't currently do a hard drive for the C64. There may be third party drives available, but I have no information on their use and configuration.

Without knowing which BBs software you're planning on using, I wouldn't hazard a guess on whether it would work with a hard drive.

### ■ TIP! Icon Recovery

Even experienced users find the CLI heavy going and it's all too easy to type DELETE#? when you really meant DELETE RAM:#? or something similar. As the Amiga Workbench is supplied, none of these files are protected from deletion - this includes the dot-info files used to display icons in Workbench windows. It is possible to make

these files read only and protect them from accidental deletion, but this prevents the 'Snapshot' feature from working (That's a tip in itself).

Assuming that you've made all the data work and all of the files read only, but left the dot-infos deletable (the best configuration under normal circumstances) accidentally typing DELETE #? removes all the .info files in one fell swoop. If this happens in the root directory, it prevents you opening any drawers from Workbench or running a Shell. On a hard disk system this spells major disaster. Here's a nice tip that should help beginners and experts alike.

While working in a CLI/Shell, keep the equivalent Workbench drawer open - and if you don't understand that you shouldn't be fiddling in the CLI (back to the manuals ... Ed). In the event that you accidentally delete all of the .info files all that you have to do is snapshot them all back again. This means shift clicking on each one in turn and when they're all selected, selecting Snapshot from the special menu.

It's vital to note that once you close the drawer, the icons stored in memory are lost until the disk/drawer is re-opened. This operation should be carried out immediately you realise your mistake. Also note that this technique won't recreate lost programs, only dot-info files. At least it will allow you to move through the directories. Mark Smiddy, Redcar, Cleveland.

A useful Amiga tip from Amiga Specialist Mark Smiddy. Mark works as a freelance consultant and writer and even if he isn't prepared to blow

his own trumpet, I'll do it for him. He can be contacted via Orion Computer services on 0642 482831 and is a source of wisdom, info and ideas for the Amiga.

### ■ HELP! WordPlus

I have just upgraded from an Amstrad 1640 to its 2086 machine in the office. Having swiftly confined its version of Windows to the dog kennel, I installed all my GEM software which runs perfectly, except 1st Word Plus (vers. 1.12), which won't run at all, despite trying it under various different modes - MDA, Hercules etc.

I phoned Evesham Micros, who were unable to help. I also phoned GST Software who informed me they had sold the rights to Digital Research.

I would like to stick with 1st Word Plus as I also have an Atari version at home, with obvious advantages, so please don't suggest Protext or WordStar version 17.5.

PS I am writing this letter using EDLIN on a Commodore Pet, so you can see how serious my problem is.

Paul Cheverton, Isle of Wight

As we've never seen a copy of the PC version of First Word Plus in the *Express* office, I took your question to PC Plus technical Supremo Steve Patient who suggests: "The version of GEM that you are running is probably configured for your old hardware. Upgrade GEM to a newer version fully compatible with your 2086 and your problem should be solved." What more can I add to that? (Nothing...Ed)

### ■ COMMENT! World problems

During a recent trip to the Soviet Union, one of the lucky few to own a PC tugged at my sleeve during a business meeting. There was a problem with his machine and he hoped that I could sort it out. The machine was of Russian manufacture and although it offered a familiar pattern of words on the screen, they were in Cyrillic script and unfathomable.

Offered the choice of shrugging shoulders and perhaps offending our hosts or attempting some magical multi-lingual cure, I opted for the latter.

Assuming that PCs the world over catch the same viruses, crash for the same reason and have similar problems, I reckoned that the standard Tech Tips checklist might help. The computer in question was an EGA PC AT clone that had lost its SETUP (battery backed) and was refusing to acknowledge any drives other than the 360K 5.25-inch A drive.

There's a temptation to rush to the big box of diagnostic disks and steam through the machine with Norton and PC Tools at the first sign of a poorly PC.

These diagnostic remedies are fine, but to go through a complete set of them can take a lot of time and work. An interpreter translated my comment that it might be an idea to check the state of the batteries and all the connectors in the machine. By this time the tower box had been opened and several puzzled faces (including my own) were looking pensively at its caged innards.

They'd been expecting more. My almost simplistic suggestion would have been laughed at if I were a local, but as a guest, they were polite and even went as far as to



check the connections ... and it worked. Smug relief for me, shock and surprise for them and the cementing of yet another East-West friendship.

Proof positive that it's so easy to over complicate a problem and that an ordered simplistic approach to troubleshooting can always reap dividends.



# THE ATARI ABC

Now, there's a PC-AT compatible that not only solves problems like other AT compatibles, it also solves the one problem that its predecessors have created ... affordability.

Silica Systems are pleased to present the new Atari ABC. The ABC is a 286 AT compatible that runs at over 3 times the performance of the IBM XT. This is achieved by combining the power and speed of a 16-bit 286 processor, with Atari Corp's development experience and engineering capabilities, which use the very latest in design technology. However, the Atari ABC's are available at 'XT prices' and many XT owners will wonder why they paid more, but got less!

The ABC is a reliable, high performance computer, built to exceptionally rigorous standards. It is well designed, to a state of the art specification, maintaining maximum expansion capability for the future. This includes up to 4Mb of RAM and 3 AT expansion slots. Plus, unusually for a PC at this price, the ABC has the ability to install two or three extra drives, with the cabling already inside the CPU.

The ABC has a host of impressive features, all built-in as standard, encouraging simple installation and ease of use. In addition, the ABC's small footprint and quiet operating, mean that you will notice it less on your desk than other PC's. Except, of course, when you begin to take advantage of its AT power.

At its remarkably low price point, the ABC is ideally suited for home, office and educational use and will take full advantage of the vast range of PC compatible software. And, with 12 months FREE on-site maintenance (8 hour response), you can rest assured that your ABC will be fully supported.

The ABC is the latest addition to a comprehensive range of both 286 (8Mhz or 12Mhz) and 386 (16Mhz and 20Mhz) PC's, from the Business Systems Division of Atari Corp. Atari's PC range offers an unsurpassed combination of reliability, compatibility and expandability, with unique features like Atari's 44Mb removable hard disk on their PC4. Return the coupon NOW for further details of the complete range of PC products from Atari's Business Systems Division.

**ABC  
TURBO**

AVAILABLE: JUNE 90

To put the ABC even further ahead of the competition, we have introduced a special 'Turbo' version, which includes a super fast RLL hard disk controller to increase the data transfer rate from 150KBytes/s to 800KBytes/s, with a performance index of 4.801. Plus! to provide exceptional graphics with an outstanding colour resolution up to 1024x768, we have included a Super VGA graphics adaptor and a 14" VGA colour monitor (which also supports 1024x768 resolution), all for an additional price of only £300. Check the ABC Turbo against the competition, at only £1299 (+VAT) with 30Mb hard disk, Super VGA colour graphics capabilities, plus 12 months on-site maintenance, it offers unbeatable value.

## LOW PRICE - HIGH SPEC!

CPU + MOTHERBOARD	<ul style="list-style-type: none"> <li>8Mhz 80286 16-bit CPU</li> <li>Landmark Speed = 10.3Mhz, Norton SI Test = 9.0</li> <li>Latest NEAT (New Enhanced AT) technology chip set</li> <li>Has user selectable bus, DMA speeds &amp; wait states</li> <li>Programmable to operate at 0 or 1 wait states</li> <li>640K RAM base memory (expandable)</li> <li>Motherboard expandable to 4Mb RAM memory</li> <li>Real time clock with battery back-up</li> <li>Full 16-bit data line capability</li> <li>Socket for 80287-8 numeric Co-Processor</li> <li>3 16-bit AT expansion slots (max)</li> </ul>
DISK	<ul style="list-style-type: none"> <li>32Mb RLL hard disk - 150KBytes/s transfer - 60ms access</li> <li>Fast disk controller - 800KBytes/s transfer - Turbo version</li> <li>1.44Mb built-in 3 1/2" floppy disk drive</li> <li>Space for two 5 1/4" and two 3 1/2" drives (max)</li> </ul>
I/O	<ul style="list-style-type: none"> <li>Parallel port built-in (25-pin Centronics)</li> <li>Serial port built-in (9-pin RS-232)</li> <li>Mouse controller port built-in (9-pin serial)</li> </ul>
GRAPHICS	<ul style="list-style-type: none"> <li>Super VGA video graphics controller - 512K - Turbo vers</li> <li>Super VGA: 256 colours in 800x600 res - Turbo vers</li> <li>EGA video graphics controller built-in</li> <li>EGA: 16 colours available from a palette of 64</li> <li>EGA: 256K of dedicated Video RAM built-in</li> <li>MDA, CGA and Hercules graphics controller built-in</li> </ul>
PHYSICAL	<ul style="list-style-type: none"> <li>Low noise operation</li> <li>Ergonomic small footprint (38cm x 41cm x 15cm)</li> <li>Keyboard - 102 key enhanced AT (12 function keys)</li> <li>Keyboard - has 2 position height adjusters</li> </ul>
PLUS!	<ul style="list-style-type: none"> <li>Fully OS/2 compatible (requires 4Mb RAM)</li> <li>Supports Industry Standard Networks</li> <li>MS-DOS 3.3 with GW BASIC 3.22</li> <li>12 Months FREE on-site maintenance included</li> </ul>

# 286 AT

WITH 30Mb HARD DISK & EGA MONITOR - £899

**FREE! - ON-SITE MAINTENANCE**

**FREE! - TECHNICAL SUPPORT HOTLINE**

**FREE! - TEST/BURN-IN BEFORE DESPATCH**

**FREE! - OVERNIGHT COURIER DELIVERY**

**£899**  
WITH +VAT  
**30Mb  
HARD  
DISK**  
AND  
**EGA  
MONITOR**



**ABC  
TURBO**  
**£1299**  
+VAT  
• SVGA COLOUR MONITOR  
• SVGA GRAPHICS CARD - 512K  
• 30Mb HARD DISK DRIVE  
• FAST DISK CONTROLLER

**£899** +VAT= £1033.85

**ATARI**

	3 1/2" FLOPPY DRIVE NO HARD DRIVE	3 1/2" FLOPPY DRIVE + 30Mb HARD DRIVE
<b>NO MONITOR</b>	<b>£599</b> +VAT = £688.85	<b>£799</b> +VAT = £918.85
<b>+ EGA MONO</b>	<b>£699</b> +VAT = £803.85	<b>£899</b> +VAT = £1033.85
<b>+ EGA COLOUR</b>	<b>£799</b> +VAT = £918.85	<b>£999</b> +VAT = £1148.85
<b>ABC TURBO</b> AVAIL. JUNE 90	• 14" SVGA COLOUR MONITOR • SVGA GRAPHICS ADAPTOR • FAST DISK CONTROLLER <b>£1099</b> +VAT = £1263.85	<b>£1299</b> +VAT = £1493.85

## SILICA SYSTEMS OFFER YOU

**ON-SITE MAINTENANCE** 24 hour response: Available Free of Charge on all ABC's.  
**TECHNICAL SUPPORT HELPLINE:** Team of Atari technical experts at your service.  
**100% QUALITY CONTROL:** Every ABC is tested/burnt-in before despatch.  
**FREE OVERNIGHT COURIER DELIVERY:** On all hardware orders shipped in the UK.  
**ESTABLISHED 12 YEARS:** Proven track record in professional computer sales.  
**£13M TURNOVER (with 60 staff):** Solid and reliable with maintained growth.  
**BUSINESS/EDUCATION/GOVERNMENT:** Volume discounts available for large orders.  
**PRICE MATCH:** We normally match competitors on a "Same product - Same price" basis.  
**SHOWROOMS:** Demonstration and training facilities at our London & Sidcup branches.  
**THE FULL STOCK RANGE:** All of your Atari PC requirements from one supplier.  
**FREE CATALOGUES:** Will be mailed to you with offers and software/peripheral details.  
**PAYMENT:** Cash / cheque / credit card / credit - we are licensed credit brokers - details on request.

Before you decide when to buy your new Atari ABC, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your ABC, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new ABC products? At Silica Systems, we ensure that you will have nothing to worry about. Silica Systems is a new division of Silica Shop, the UK's leading Atari specialists. This new division has been established to provide a service to the more serious home user, as well as to business and education purchasers. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now, for our latest Free literature and begin to experience the "Silica Systems Service".

**SILICA  
SYSTEMS**

**MAIL ORDER:** 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111  
 Order Lines Open: Mon-Sat 9.00am-6.00pm No Late Night Opening Fax No: 081-308 0608  
**LONDON SHOP:** 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000  
 Opening Hours: Mon-Sat 9.30am-6.00pm Late Night: Thursday until 8pm Fax No: 071-323 4737  
**SIDCUP SHOP:** 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-302 8811  
 Opening Hours: Mon-Sat 9.00am-5.30pm Late Night: Friday until 7pm Fax No: 081-309 0017  
**BUSINESS/EDUCATION:** 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-308 0888  
 Order Lines Open: Mon-Fri 9.00am-6.00pm Closed on Saturdays Fax No: 081-308 0888

To: Silica Systems Ltd, Dept NCE-1190-28, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

## PLEASE SEND INFORMATION ON ATARI PC's

Mr/Mrs/Ms: ..... Initials: ..... Surname: .....  
 Address: .....  
 Postcode: .....  
 Tel (Home): ..... Tel (Work): .....  
 Company Name: .....  
 Which computer(s), if any, do you own? .....



**WIN £2,000 OF  
PANASONIC LASER PRINTER  
IN THE EXPRESS MONTHLY  
GIVEAWAY**



The Express  
monthly competition to win  
a £2,000 Panasonic laser printer rolls on.  
This is the last question on the list. Oh,

# WIN! WIN! WIN!



and don't forget  
to send all four  
tokens in with your  
four answers.

### QUESTION 4:

Which of the follow-  
ing is NOT a kind of  
printer?

- A) 11-pin dot matrix
- B) Laser
- C) Inkjet

### OOPS!

You may have noticed that in last week's issue we printed the same competition page as the week before. We just wanted to make sure that all our readers didn't miss out on the chance to win a £2,000 Panasonic laser printer.

So, once you've answered question four - the final question - send it and the answers to the previous three questions, along with your four competition tokens to The Monthly Competition, Express at the usual address. Entries to be received no later than Monday 12 November.

## TEN COPIES OF DELUXEPAINT FOR THE ST AND AMIGA TO BE WON £499.50 WORTH OF PRIZES!

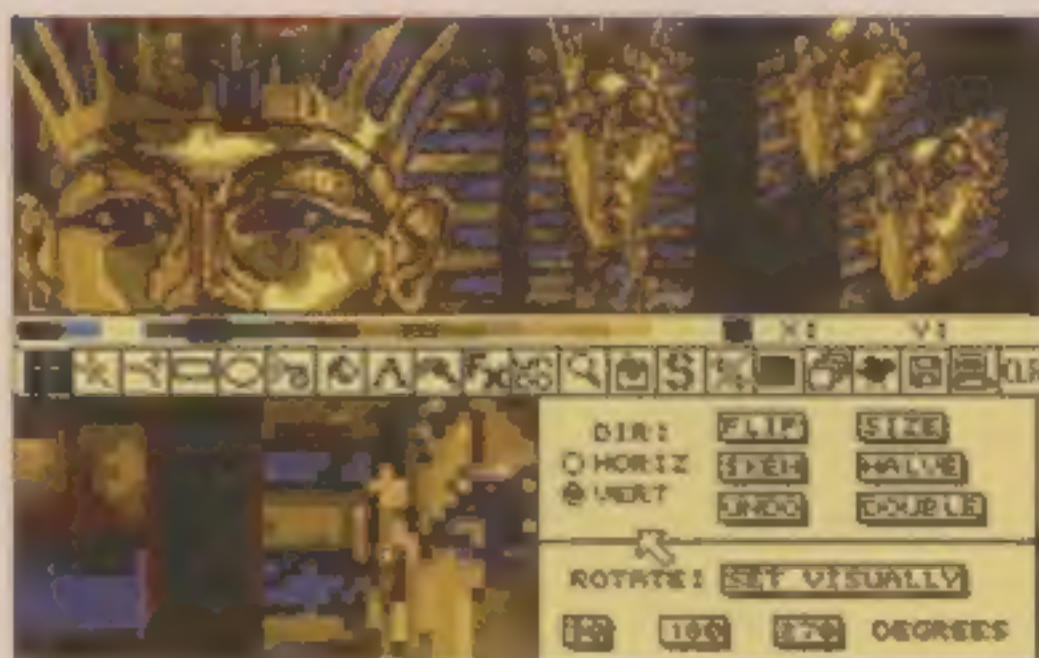
If you turn to page 74 of last week's issue you will see Jason Holborn's review of *DeluxePaint* (or *DPaint*) for the Atari ST. Jase told us the following about the program:

"Animation is a relatively new addition to *DPaint*, but it still manages to hit the competition for six."

"An absolute wealth of painting tools."

"Text control is superb."

These and other accolades are laid at the feet of the new graphics system. Of course Amiga owners have had access to a similar system for a while now - although the programming team is different. So, with Express and Electronic Arts you get the chance to win a copy of this superb software suite. All you have to do is answer the following 5 questions, fill in the coupon below and send the whole lot off to us. Entries should arrive



at the Express office no later than Monday 19 November 1990.

### QUESTIONS:

- 1) Which painter cut his ear off?  
A) Vincent Price  
B) Vincent Van Gogh  
C) Vincent Van Hier

- 2) Which painter was famous for matchstick men style figures?

- A) LS Lowry
- B) TS Elliott
- C) LS Diary

- 3) Which artist was noted for his 'lack of height'?

- A) David Platt
- B) Toulouse Lautrec
- C) Joel Garner

- 4) Who painted *Guernica*?

- A) Pablo Casals
- B) Jim Morrison
- C) Pablo Picasso

- 5) Who was known for his 'action painting'?

- A) Michael Jackson
- B) Jackson Pollock
- C) William de Kooning

NAME.....

ADDRESS.....

The answers are: 1)                      2)                      3)                      4)                      5)

Supplementary question for the mystery prize...

Artificial Intelligence can never work because.....  
(No more than 5 words).

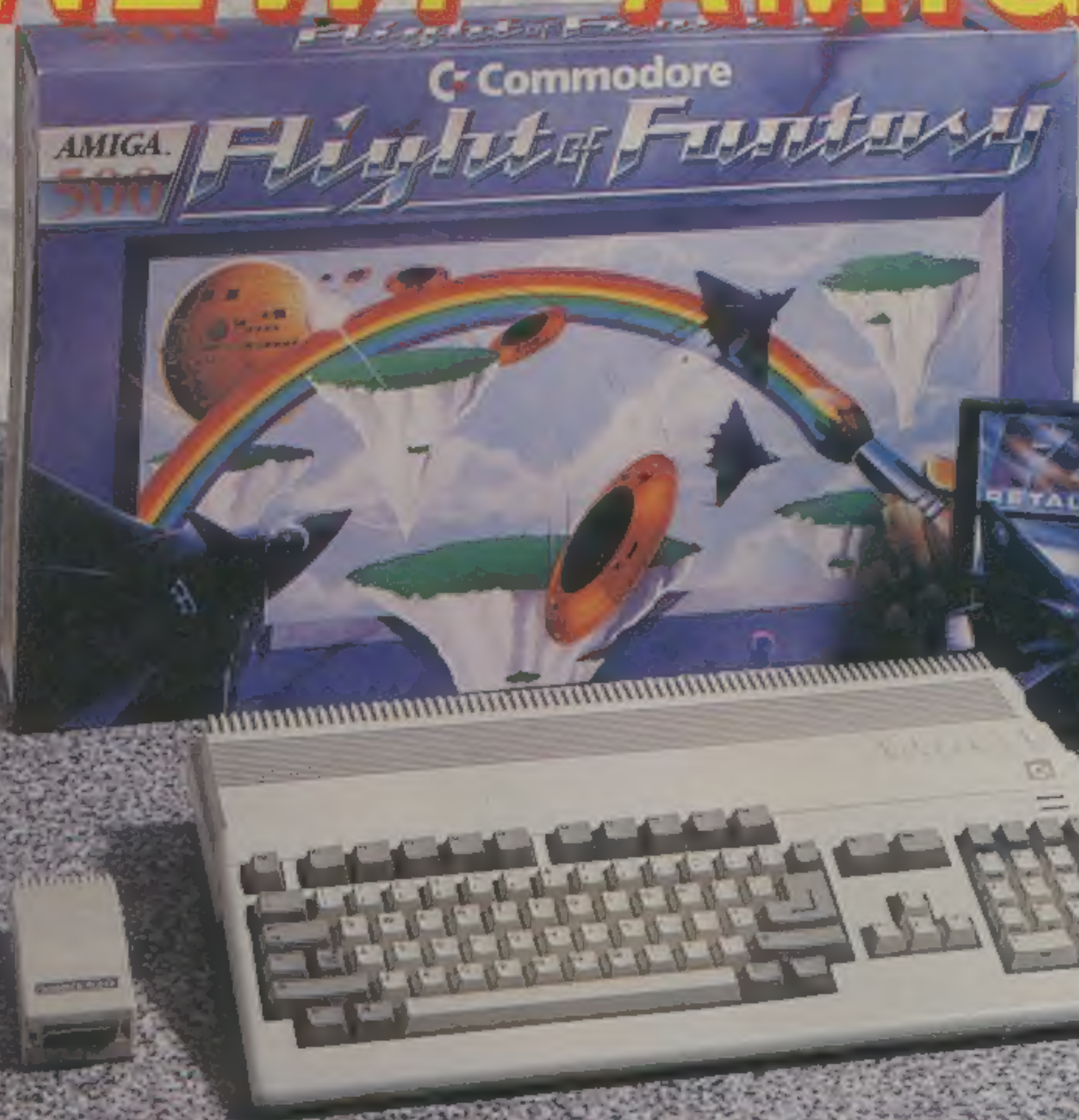
### THE WINNERS OF THE DRAGONFLIGHT

Adam Wright, Thorplands, Northants; B Hobson, Huddersfield, W Yorkshire; Bill Brand, Perth; CJ Phelps, Brockworth, Glos; David Dennis, Ossett, W Yorkshire; Graham Persson, Livingston, W Lothian; J Wheeler, Biggleswade, Beds; Jason Brome, Canvey Island, Essex; K Crabbe, Bath, Avon; K Joyce, Sheffield, S Yorkshire; Mark Hopwood, Blacon, Cheshire; Mrs E M Dron, Sutton, Surrey; Mrs PC Spencer, Spofforth, Harrogate; P Childs, Nuneaton, Warwicks; P Magee, Warlingham, Surrey; Scott Keir, Forres, Moray; Simon Lacey, Aylesbury, Bucks; Steve Lee, Ramsey, Cambs; Steve Sharples, Bingley, W Yorkshire; Vienna O'Hara, Bradford, W Yorkshire. Well done to each and everyone of you.



RETURN THE COUPON FOR FREE COLOUR BROCHURES!

# NEW! - AMIGA PACK



Commodore A500  
Flight Of Fantasy

**£399** INC VAT

## A500 BATMAN PACK



The Commodore A500 Batman Pack must surely rank as one of the most popular computer packs ever! The pack features the Commodore Amiga 500 computer with mouse controller and TV modulator, plus four top software titles. The software includes: 'Batman The Movie' - Rid Gotham City of the cunning joker, in Ocean's top selling title based on the blockbuster Batman film; New Zealand Story - high quality conversion of the leading arcade game; Interceptor - Dogfight with two F-16's in this leading flight simulator; Deluxe Paint II - top quality Amiga graphics package which set the standard for others to follow. Return the coupon for further details.

**PACK INCLUDES:**  
A500 Computer & Mouse £399.99  
A520 TV Modulator £24.99  
Batman The Movie £24.95  
New Zealand Story £24.95  
Interceptor £24.95  
Deluxe Paint II £49.95  
**TOTAL RRP: £549.78**  
**Less Pack Saving: £150.78**  
**PACK PRICE: £399.00**  
**£399** INC VAT

## AMIGA 2000



For the more serious or professional applications user, Commodore have a selection of systems based around the expandable Amiga 2000, at prices from £1295+VAT. The A2000 features a full 1Mb RAM (expandable to 8Mb), 9 system expansion slots, plus IBM compatibility with the use of PC-XT or PC-AT bridgeboards. Complete and return the coupon, putting a tick in the A2000 box, for details of A2000 computer systems **£1295** + VAT = £1489.25

## FLIGHT OF FANTASY

Flight of Fantasy is the very latest Amiga 500 pack from Commodore, featuring BRAND NEW software releases, to make this the most spectacular A500 pack ever! The pack features the Amiga 500 computer with mouse controller and TV modulator, as well as four top software titles. These include the following:

**DELUXE PAINT II:**  
The high quality graphics program that set the standard for other Amiga art packages. Deluxe Paint II includes powerful, easy to use tools that bring out the artist in you. Create masterpieces, presentations, 3D perspectives or just doodle.

**ESCAPE / ROBOT MONSTERS:**  
Here's something completely different - a science fiction story with comic book style graphics. Our heroes Jake and Duke are on the Planet X rescuing Humans who have been captured by the Robot Monsters and forced to create an evil Robot Army to DESTROY EARTH! Jake and Duke fight their way through hordes of evil Robots to help the Humans escape.

**RAINBOW ISLANDS:**  
Slip on your magic shoes, practice throwing a minnow and you're ready to go island hopping. From the Island of Doh to Monster Island, you will encounter Doh himself, slinging insects, lethal combat machines, mechanical assailants, the formidable beings of legend and folklore. Finally enter the world of darkness and its inhabitants.

**F29 RETALIATOR:**  
The ultimate in flight simulation with a choice of two aircraft and four battle environments with dozens of different tactical missions. Aerial combat, strategic bombings, interactive ground based battles, seagoing carriers... the list of features is endless. Real time cockpit displays, including 'true radar' enhance the realistic feel of this stunning simulation.

**PACK INCLUDES:**  
A500 Computer & Mouse £399.99  
A520 TV Modulator £24.99  
Deluxe Paint II £49.95  
Escape/Robot Monsters £19.99  
Rainbow Islands £24.95  
F29 Retaliator £4.95  
**TOTAL RRP: £544.82**  
**Less Pack Saving: £145.82**  
**PACK PRICE: £399.00**  
**£399** INC VAT

**FOR FURTHER DETAILS OF THE AMIGA RANGE, COMPLETE THE COUPON AND RETURN IT TO SILICA SHOP THE UK's No1 AMIGA SPECIALISTS**

## SILICA SHOP OFFER YOU

**FREE OVERNIGHT COURIER DELIVERY:** On all hardware orders shipped in the UK.  
**TECHNICAL SUPPORT HELPLINE:** Team of Amiga technical experts at your service.  
**PRICE MATCH:** We normally match competitors on a "Same product - Same price" basis.  
**ESTABLISHED 12 YEARS:** Proven track record in professional computer sales.  
**£13M TURNOVER (with 60 staff):** Solid and reliable with maintained growth.  
**BUSINESS/EDUCATION/GOVERNMENT:** Volume discounts available for large orders.  
**SHOWROOMS:** Demonstration and training facilities at our London & Sidcup branches.  
**THE FULL STOCK RANGE:** All of your Amiga requirements from one supplier.  
**FREE CATALOGUES:** Will be mailed to you with offers and software/peripheral details.  
**PAYMENT:** By cash, cheque and all major credit cards.  
**CREDIT PAYMENT TERMS:** Silica are licensed credit brokers - return coupon for details.

Before you decide when to buy your new Amiga computer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your Amiga, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new products? Silica Shop, we ensure that you will have nothing to worry about. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature and begin to experience the "Silica Shop Service".

RETURN THE COUPON NOW FOR FREE BROCHURES



**MAIL ORDER:** 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111  
Order Lines Open: Mon-Sat 9.00am-6.00pm No Late Night Opening Fax No: 081-308 0608  
**LONDON SHOP:** 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000  
Opening Hours: Mon-Sat 9.30am-6.00pm Late Night: Thursday until 11pm Fax No: 071-323 4737  
**SIDCUP SHOP:** 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-302 8811  
Opening Hours: Mon-Sat 9.00am-5.30pm Late Night: Friday until 7pm Fax No: 081-309 0017  
**BUSINESS/EDUCATION:** 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-308 0888  
Order Lines Open: Mon-Fri 9.00am-6.00pm Closed on Saturdays Fax No: 081-308 0608

To: Silica Systems Ltd, Dept NCE-1190-32, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

**PLEASE SEND INFORMATION ON THE AMIGA**

Mr/Mrs/Ms: ..... Initials: ..... Surname: .....  
Address: .....  
Postcode: ..... Tel: .....  
Which computer(s), if any, do you own? ..... A2000 ☐

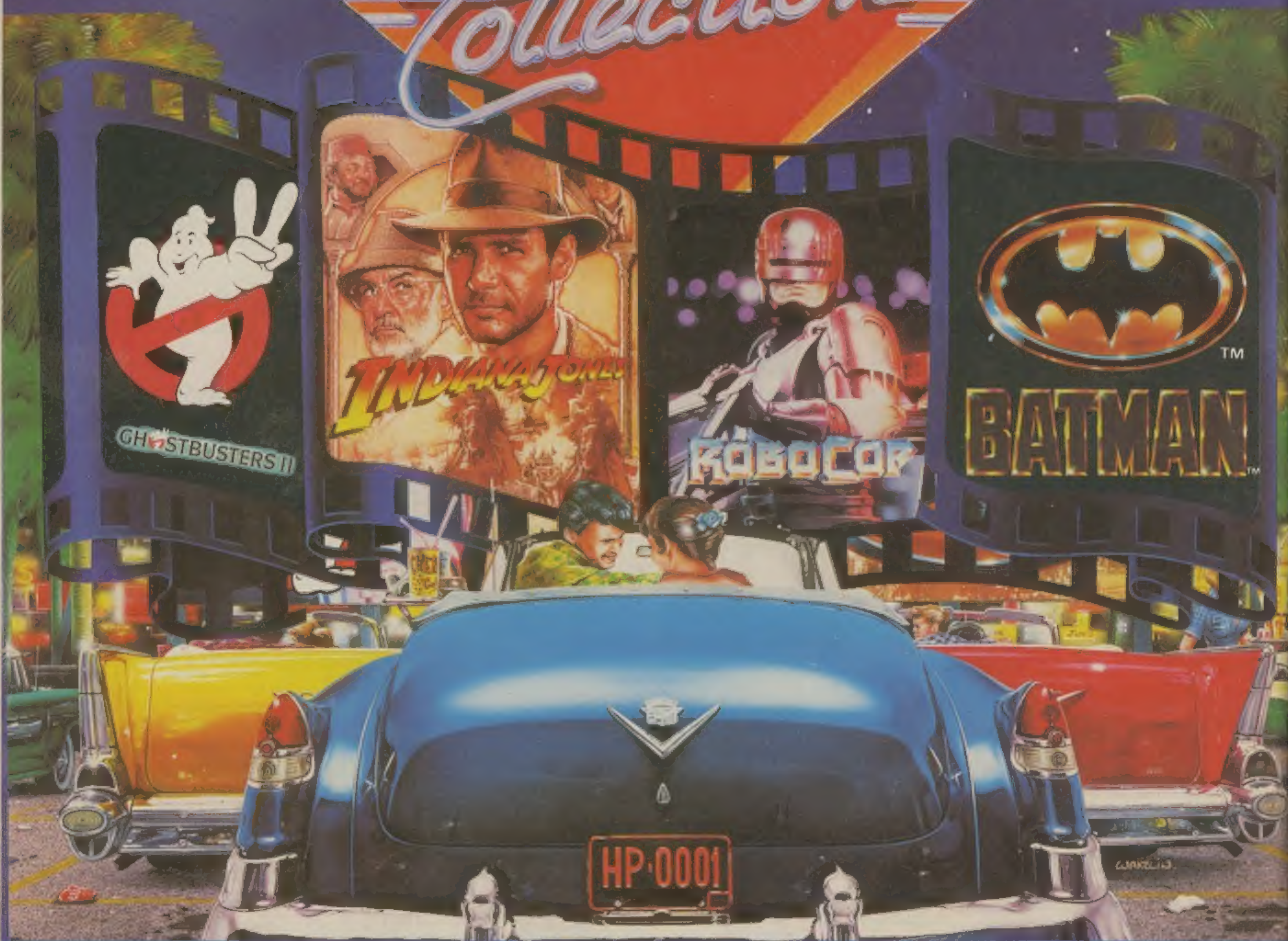
ES&OE - Advertised prices and specifications may change - please return the coupon for the latest information.



**THE COMPILATION PACK  
OF MEGA STARS**

# HOLLYWOOD

*Collection*



**ROBOCOP**

**GHOSTBUSTERS II**

**INDIANA JONES**

**BATMAN**



ROBOCOP™ & © 1989 COLUMBIA PICTURES INDUSTRIES INC. ALL RIGHTS RESERVED.



© 1989 COLUMBIA PICTURES INDUSTRIES INC. ALL RIGHTS RESERVED.



TM & COPYRIGHT © 1989 BY LUCASFILM LTD. (LFL) ALL RIGHTS RESERVED.



TM & © 1964 DC COMICS INC.

**AMIGA ATARI ST**

**ocean**

**AMSTRAD  
SPECTRUM  
COMMODORE**

OCEAN SOFTWARE LIMITED · 6 CENTRAL STREET · MANCHESTER · M2 5NS · TEL: 061 832 6633 · FAX: 061 834 0650